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185

190

<210> 3847  
<211> 1570  
<212> DNA  
<213> Homo sapiens

<400> 3847  
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480  
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1320

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<210> 3848  
 <211> 120  
 <212> PRT  
 <213> Homo sapiens

<400> 3848  
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 Asn Met Asn Thr Leu Tyr Pro Asp Ala Thr Pro Glu Glu Leu Gln Ala  
 35 40 45  
 Met Asp Asn Val Cys Ile Ile Cys Arg Glu Glu Met Val Thr Gly Ala  
 50 55 60  
 Lys Arg Leu Pro Cys Asn His Ile Phe His Thr Arg Trp Glu Gly Pro  
 65 70 75 80  
 Trp Gly Ala Cys Pro Ala Gly Pro Arg Pro Gln Lys Ala Gly Pro Lys  
 85 90 95  
 Gly Pro Ala Asp Leu Cys Leu Ala Leu Thr Arg Ser Cys Leu Arg Ser  
 100 105 110  
 Trp Phe Gln Arg Gln Gln Thr Cys  
 115 120

<210> 3849  
 <211> 1139  
 <212> DNA  
 <213> Homo sapiens

<400> 3849  
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 300  
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 720  
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 840  
 aaaaacctcc gtaacaccaa ctatgatgct tttgagaaga tatgctgggg gctgggaatt  
 900  
 gactacacct tccccctct gtattaccga agagcccacc gccgattcgt gaccaagaag  
 960  
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 1020  
 aaggctgcag cagcagccca aaaacaagca aagcggagga acccagacag cctgccaag  
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<210> 3850

<211> 257

<212> PRT

<213> Homo sapiens

<400> 3850

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Val	Thr	Gln	Val	Leu	Val	Pro	Gly	Leu	Pro	Gly	Gly	Gly	Ser	Ala	Lys
			20					25					30		
Phe	Pro	Phe	Asn	Gln	Trp	Gly	Leu	Gln	Pro	Arg	Ser	Leu	Leu	Leu	Gln
		35				40					45				
Ala	Ala	Arg	Gly	Tyr	Val	Val	Arg	Lys	Pro	Ala	Gln	Ser	Arg	Leu	Asp
	50					55					60				
Asp	Asp	Pro	Pro	Pro	Ser	Thr	Leu	Leu	Lys	Asp	Tyr	Gln	Asn	Val	Pro
65					70					75				80	
Gly	Ile	Glu	Lys	Val	Asp	Asp	Val	Val	Lys	Arg	Leu	Leu	Ser	Leu	Glu
			85					90					95		
Met	Ala	Asn	Lys	Lys	Glu	Met	Leu	Lys	Ile	Lys	Gln	Glu	Gln	Phe	Met
			100					105					110		
Lys	Lys	Ile	Val	Ala	Asn	Pro	Glu	Asp	Thr	Arg	Ser	Leu	Glu	Ala	Arg
		115				120					125				
Ile	Ile	Ala	Leu	Ser	Val	Lys	Ile	Arg	Ser	Tyr	Glu	Glu	His	Leu	Glu
	130					135					140				
Lys	His	Arg	Lys	Asp	Lys	Ala	His	Lys	Arg	Tyr	Leu	Leu	Met	Ser	Ile
145				150					155					160	
Asp	Gln	Arg	Lys	Lys	Met	Leu	Lys	Asn	Leu	Arg	Asn	Thr	Asn	Tyr	Asp
			165					170					175		
Val	Phe	Glu	Lys	Ile	Cys	Trp	Gly	Leu	Gly	Ile	Glu	Tyr	Thr	Phe	Pro

180	185	190
Pro Leu Tyr Tyr Arg Arg Ala His Arg Arg Phe Val Thr Lys Lys Ala		
195	200	205
Leu Cys Ile Arg Val Phe Gln Glu Thr Gln Lys Leu Lys Lys Arg Arg		
210	215	220
Arg Ala Leu Lys Ala Ala Ala Ala Ala Gln Lys Gln Ala Lys Arg Arg		
225	230	235
Asn Pro Asp Ser Pro Ala Lys Ala Ile Pro Lys Thr Leu Lys Asp Ser		
245	250	255

Gln

&lt;210&gt; 3851

&lt;211&gt; 1183

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3851

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 120  
 ggccgtgtcc gccgggcaac tccagccgag gcctgggctt ctgcctgcag gtgtctgcgg  
 180  
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 240  
 gctggccgcc tgccctctct cgtgctggtg gtgctgctgg tggtagatgt cgtcctcgcc  
 300  
 ttcaactact ggagcatctc ctcccgccac gtctgcttc aggaggaggt ggccgagctg  
 360  
 cagggccagg tccagcgcac cgaagtggcc cgcgggcggc tggaaaagcg caattcggac  
 420  
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 480  
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 720  
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 780  
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 840  
 aatcaagtag tacctaaaaa tattccaaaa gtagctgaga atgttgacaga taagaatgaa  
 900  
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 960  
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 1080



actggacaac ctctctcccc aaatatgcct ccagattcac acataaacca caatggaaac

1140

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1183

<210> 3852

<211> 323

<212> PRT

<213> Homo sapiens

<400> 3852

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Val	Leu	Val	Val	Leu	Leu	Val	Val	Ile	Val	Val	Leu	Ala	Phe	Asn	Tyr
			20					25					30		
Trp	Ser	Ile	Ser	Ser	Arg	His	Val	Leu	Leu	Gln	Glu	Glu	Val	Ala	Glu
			35				40						45		
Leu	Gln	Gly	Gln	Val	Gln	Arg	Thr	Glu	Val	Ala	Arg	Gly	Arg	Leu	Glu
			50			55					60				
Lys	Arg	Asn	Ser	Asp	Leu	Leu	Leu	Val	Asp	Thr	His	Lys	Lys	Gln	
65					70				75					80	
Ile	Asp	Gln	Lys	Glu	Ala	Asp	Tyr	Gly	Arg	Leu	Ser	Ser	Arg	Leu	Gln
				85					90					95	
Ala	Arg	Glu	Gly	Leu	Gly	Lys	Arg	Cys	Glu	Asp	Asp	Lys	Val	Lys	Leu
			100						105				110		
Gln	Asn	Asn	Ile	Ser	Tyr	Gln	Met	Ala	Asp	Ile	His	His	Leu	Lys	Glu
			115				120						125		
Gln	Leu	Ala	Glu	Leu	Arg	Gln	Glu	Phe	Leu	Arg	Gln	Glu	Asp	Gln	Leu
			130				135					140			
Gln	Asp	Tyr	Arg	Lys	Asn	Asn	Thr	Tyr	Leu	Val	Lys	Arg	Leu	Glu	Tyr
145					150					155					160
Glu	Ser	Phe	Gln	Cys	Gly	Gln	Gln	Met	Lys	Glu	Leu	Arg	Ala	Gln	His
				165					170					175	
Glu	Glu	Asn	Ile	Lys	Lys	Leu	Ala	Asp	Gln	Phe	Leu	Glu	Glu	Gln	Lys
			180						185					190	
Gln	Glu	Thr	Gln	Lys	Ile	Gln	Ser	Asn	Asp	Gly	Lys	Glu	Leu	Asp	Ile
			195				200						205		
Asn	Asn	Gln	Val	Val	Pro	Lys	Asn	Ile	Pro	Lys	Val	Ala	Glu	Asn	Val
			210				215					220			
Ala	Asp	Lys	Asn	Glu	Glu	Pro	Ser	Ser	Asn	His	Ile	Pro	His	Gly	Lys
225					230					235					240
Glu	Gln	Ile	Lys	Arg	Gly	Gly	Asp	Ala	Gly	Met	Pro	Gly	Ile	Glu	Glu
				245					250					255	
Asn	Asp	Leu	Ala	Lys	Val	Asp	Asp	Leu	Pro	Pro	Ala	Leu	Arg	Lys	Pro
			260						265					270	
Pro	Ile	Ser	Val	Ser	Gln	His	Glu	Ser	His	Gln	Ala	Ile	Ser	His	Leu
			275				280						285		
Pro	Thr	Gly	Gln	Pro	Leu	Ser	Pro	Asn	Met	Pro	Pro	Asp	Ser	His	Ile
			290				295					300			
Asn	His	Asn	Gly	Asn	Pro	Gly	Thr	Ser	Lys	Gln	Asn	Pro	Ser	Ser	Pro
305					310					315					320
Leu	His	Ala													

&lt;210&gt; 3853

&lt;211&gt; 375

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3853

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120  
atggacgaac gaaggactat taaactcagt gagtgttaca gaggatttgc tgactcagaa  
180  
cgcaaagtta ttcccatcat ttcaaaatgt ttggaaggaa tgattcttgc agcaaaatca  
240  
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360  
actatcagtg catcc  
375

&lt;210&gt; 3854

&lt;211&gt; 125

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3854

Arg	Thr	His	Met	Ala	Asp	Glu	Asn	Lys	Asn	Glu	Tyr	Ala	Ala	Gln	Leu
1				5					10					15	
Gln	Asn	Phe	Asn	Gly	Glu	Gln	His	Lys	His	Phe	Tyr	Val	Val	Ile	Pro
			20					25					30		
Gln	Ile	Tyr	Lys	Gln	Leu	Gln	Glu	Met	Asp	Glu	Arg	Arg	Thr	Ile	Lys
			35				40					45			
Leu	Ser	Glu	Cys	Tyr	Arg	Gly	Phe	Ala	Asp	Ser	Glu	Arg	Lys	Val	Ile
			50				55				60				
Pro	Ile	Ile	Ser	Lys	Cys	Leu	Glu	Gly	Met	Ile	Leu	Ala	Ala	Lys	Ser
					70					75				80	
Val	Asp	Glu	Arg	Arg	Asp	Ser	Gln	Met	Val	Val	Asp	Ser	Phe	Lys	Ser
				85					90					95	
Gly	Phe	Glu	Pro	Pro	Gly	Asp	Phe	Pro	Phe	Glu	Asp	Tyr	Ser	Gln	His
			100					105					110		
Ile	Tyr	Arg	Thr	Ile	Ser	Asp	Gly	Thr	Ile	Ser	Ala	Ser			
			115					120				125			

&lt;210&gt; 3855

&lt;211&gt; 1377

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3855

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120

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 240  
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 360  
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 480  
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 780  
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 1080  
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 1200  
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 1377

&lt;210&gt; 3856

&lt;211&gt; 330

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3856

Xaa	Ala	Ala	Thr	Met	Ala	Thr	Tyr	Asn	Gln	Leu	Ser	Tyr	Ala	Gln	Lys
1				5				10					15		
Ala	Lys	Tyr	His	Leu	Cys	Ser	Ala	Gly	Trp	Leu	Glu	Thr	Gly	Arg	Val
	20							25					30		
Ala	Tyr	Pro	Thr	Ala	Phe	Ala	Ser	Gln	Asn	Cys	Gly	Ser	Gly	Val	Val

35	40	45
Gly Ile Val Asp Tyr Gly Pro Arg Pro Asn Lys Ser Glu Met Trp Asp		
50	55	60
Val Phe Cys Tyr Arg Met Lys Asp Val Asn Cys Thr Cys Lys Val Gly		
65	70	75
Tyr Val Gly Asp Gly Phe Ser Cys Ser Gly Asn Leu Leu Gln Val Leu		
85	90	95
Met Ser Phe Pro Ser Leu Thr Asn Phe Leu Thr Glu Val Leu Ala Tyr		
100	105	110
Ser Asn Ser Ser Ala Arg Gly Arg Ala Phe Leu Glu His Leu Thr Asp		
115	120	125
Leu Ser Ile Arg Gly Thr Leu Phe Val Pro Gln Asn Ser Gly Leu Gly		
130	135	140
Glu Asn Glu Thr Leu Ser Gly Arg Asp Ile Glu His His Leu Ala Asn		
145	150	155
Val Ser Met Phe Phe Tyr Asn Asp Leu Val Asn Gly Thr Xaa Pro Ala		
165	170	175
Asn Glu Gly Gly Lys Gln Ala Ala His His Cys Gln Pro Gly Pro Thr		
180	185	190
Xaa Gln Pro Thr Glu Thr Arg Phe Val Asp Gly Arg Ala Ile Leu Gln		
195	200	205
Trp Asp Ile Phe Ala Ser Asn Gly Ile Ile His Val Ile Ser Arg Pro		
210	215	220
Leu Lys Ala Pro Pro Ala Pro Val Thr Leu Thr His Thr Gly Leu Gly		
225	230	235
Ala Gly Ile Phe Phe Ala Ile Ile Leu Val Thr Gly Ala Val Ala Leu		
245	250	255
Ala Ala Tyr Ser Tyr Phe Arg Ile Asn Arg Arg Thr Ile Gly Phe Gln		
260	265	270
His Phe Glu Ser Glu Glu Asp Ile Asn Val Ala Ala Leu Gly Lys Gln		
275	280	285
Gln Pro Glu Asn Ile Ser Asn Pro Leu Tyr Glu Ser Thr Thr Ser Ala		
290	295	300
Pro Pro Glu Pro Ser Tyr Asp Pro Phe Thr Asp Ser Glu Glu Arg Gln		
305	310	315
Leu Glu Gly Asn Asp Pro Leu Arg Thr Leu		
325	330	

&lt;210&gt; 3857

&lt;211&gt; 797

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3857

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gcgccttgcc cgacgtcatg cagggcatgg tgctcagctc catgcagcac ttcagcgagg  
120

ccttccacca ggtcctgggc gagaagcata agcgcggcca cctggccgag gccgagggcc  
180

acagggacac ttgcgacgaa gactcgttgg ccggcgagtc ggaccgcata gacgatggca  
240

ctgttaatgg ccgcggctgc tccccgggag agtcggcctc ggggggcctg tccaaaaagc  
300

tgctgctggg cagccccagc tcgctgagcc ccttctctaa gcgcatcaag ctcgagaagg  
360  
agttcgacct gccccgggcc gcgatgcccc acacggagaa cgtgtactcg cagtggctcg  
420  
ccggctacgc ggctccagg cagctcaaag atcccttcct tagcttcgga gactccagac  
480  
aatcgccctt tgctctctcg tcggagcact cctcggagaa cgggagcttg cgcttctcca  
540  
caccgccccg ggagctggac ggagggatct cggggcgag cggcacggga agtggaggga  
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720  
ggcagttttc ggatggaagc tcgagagccc ttaagttctg agaaaatttg aagcccccg  
780  
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797

&lt;210&gt; 3858

&lt;211&gt; 76

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3858

Xaa	Arg	Ala	Thr	Thr	Arg	Thr	Ala	Ser	Gly	Ala	Arg	Ser	Trp	Ala	Trp
1			5					10					15		
Ala	Thr	Arg	Ala	Ala	Pro	Cys	Pro	Thr	Ser	Cys	Arg	Ala	Trp	Cys	Ser
		20						25					30		
Ala	Pro	Cys	Ser	Thr	Ser	Ala	Arg	Pro	Ser	Thr	Arg	Ser	Trp	Ala	Arg
		35					40					45			
Ser	Ile	Ser	Ala	Ala	Thr	Trp	Pro	Arg	Pro	Arg	Ala	Thr	Gly	Thr	Leu
	50					55					60				
Ala	Thr	Lys	Thr	Arg	Trp	Pro	Ala	Ser	Arg	Thr	Ala				
65					70						75				

&lt;210&gt; 3859

&lt;211&gt; 1449

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3859

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120  
tttgaagctc ggagtaaaac tgcttgcaag cacctctgga agtgcagtgt ggaacatcat  
180  
acatttttta gaatgccaga aatgaatcc aattcactgt caagaaaact cagcaagttt  
240  
ggatccatac gttataagca ccgtacagt ggcaggacag ctttgcaaat gagccgagat  
300  
ctttctattc agcttccccg gcctgatcag aatgtgacaa gaagtcgaag caagacttac  
360

cctaagcgaa tagcacaac acagccagct gaatcaaaca ccatcagtag gataactgca  
 420  
 aacatggaaa atggagaaaa tgaaggaaca attaaaatta ttgcaccttc accagtaaaa  
 480  
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 540  
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 600  
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 660  
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 720  
 agggaggagt cacgttcacg ctgtaacacc agcagtggta gtgaatcaga aaattcta  
 780  
 agagaacacc ggaaaaagag aaacagaata cggcaggaga atgatatggt tgattcagcg  
 840  
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 900  
 aggcgatcca gacacagatc tcgttcgaga agccccgata tccaagcaaa agaagagtta  
 960  
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 1020  
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 1080  
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 1140  
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 1200  
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 1260  
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 1320  
 cctcagacat ctacaaacaa cctggctgga aaacacacag caaaaacaat aaaactata  
 1380  
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 1440  
 aaggttgtg  
 1449

&lt;210&gt; 3860

&lt;211&gt; 348

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3860

Tyr	Lys	Asn	Lys	Lys	Gln	Val	Gly	Lys	Tyr	Phe	Trp	Pro	Arg	Ile	Thr
1				5					10					15	
Lys	Val	His	Phe	Lys	Glu	Thr	Gln	Phe	Glu	Leu	Arg	Val	Leu	Gly	Lys
		20						25				30			
Asp	Cys	Asn	Glu	Thr	Ser	Phe	Phe	Phe	Glu	Ala	Arg	Ser	Lys	Thr	Ala
		35					40					45			
Cys	Lys	His	Leu	Trp	Lys	Cys	Ser	Val	Glu	His	His	Thr	Phe	Phe	Arg
	50					55				60					
Met	Pro	Glu	Asn	Glu	Ser	Asn	Ser	Leu	Ser	Arg	Lys	Leu	Ser	Lys	Phe

65					70					75				80	
Gly	Ser	Ile	Arg	Tyr	Lys	His	Arg	Tyr	Ser	Gly	Arg	Thr	Ala	Leu	Gln
					85				90					95	
Met	Ser	Arg	Asp	Leu	Ser	Ile	Gln	Leu	Pro	Arg	Pro	Asp	Gln	Asn	Val
			100					105					110		
Thr	Arg	Ser	Arg	Ser	Lys	Thr	Tyr	Pro	Lys	Arg	Ile	Ala	Gln	Thr	Gln
			115					120					125		
Pro	Ala	Glu	Ser	Asn	Thr	Ile	Ser	Arg	Ile	Thr	Ala	Asn	Met	Glu	Asn
			130					135					140		
Gly	Glu	Asn	Glu	Gly	Thr	Ile	Lys	Ile	Ile	Ala	Pro	Ser	Pro	Val	Lys
			145				150				155				160
Ser	Phe	Lys	Lys	Ala	Lys	Asn	Glu	Asn	Ser	Pro	Asp	Thr	Gln	Arg	Ser
			165						170					175	
Lys	Ser	His	Ala	Pro	Trp	Glu	Glu	Asn	Gly	Pro	Gln	Ser	Gly	Leu	Tyr
			180					185					190		
Asn	Ser	Pro	Ser	Asp	Arg	Thr	Lys	Ser	Pro	Lys	Phe	Pro	Tyr	Thr	Arg
			195				200						205		
Arg	Arg	Asn	Pro	Ser	Cys	Gly	Ser	Asp	Asn	Asp	Ser	Val	Gln	Pro	Val
			210				215					220			
Arg	Arg	Arg	Lys	Ala	His	Asn	Ser	Gly	Glu	Asp	Ser	Asp	Leu	Lys	Gln
			225			230				235					240
Arg	Arg	Arg	Ser	Arg	Ser	Arg	Cys	Asn	Thr	Ser	Ser	Gly	Ser	Glu	Ser
			245						250					255	
Glu	Asn	Ser	Asn	Arg	Glu	His	Arg	Lys	Lys	Arg	Asn	Arg	Ile	Arg	Gln
			260					265					270		
Glu	Asn	Asp	Met	Val	Asp	Ser	Ala	Pro	Gln	Trp	Glu	Ala	Val	Leu	Arg
			275				280						285		
Arg	Gln	Lys	Glu	Lys	Asn	Gln	Ala	Asp	Pro	Asn	Asn	Arg	Arg	Ser	Arg
			290				295					300			
His	Arg	Ser	Arg	Ser	Arg	Ser	Pro	Asp	Ile	Gln	Ala	Lys	Glu	Glu	Leu
			305			310				315					320
Trp	Lys	His	Ile	Gln	Lys	Glu	Leu	Val	Asp	Pro	Ser	Gly	Leu	Ser	Glu
			325						330					335	
Glu	Gln	Leu	Lys	Glu	Ile	Pro	Tyr	Thr	Lys	Ile	Glu				
			340						345						

&lt;210&gt; 3861

&lt;211&gt; 748

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3861

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 60  
 gccaccatgt cgggagacaa acttctgagc gaactcgggtt ataagctggg ccgcacaatt  
 120  
 ggagagggca gctactccaa ggtgaagggtg gccacatcca agaagtacaa gggtagcgtg  
 180  
 gccatcaagg tgggtggaccg gcggcgagcg ccccgaggact tcgtcaacaa gttcctgccc  
 240  
 cgagagctgt ccattctgcg gggcgtgcga caccgcaca tcgtgcacgt cttcgagttc  
 300  
 atcgaggtgt gcaacgggaa actgtacatc gtgatggaag cggccgccac cgacctgctg  
 360

caagccgtgc agcgcaacgg ggcaccccc ggagttcagg cgcgcgacct ctttgcgcag  
 420  
 atcgccggcg ccgtgcgcta cctgcacgat catcacctgg tgcaccgga cctcaagtgc  
 480  
 gaaaacgtgc tgctgagccc ggacgagcgc cgcgtcaagc tcaccgactt cggttcggc  
 540  
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 acccgagtca tgcatttctt gagcacctac tgtctgccag gcccagagc tcatggcgaa  
 660  
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 720  
 atgacatgga aataaaaaaa aaaaaaaa  
 748

<210> 3862

<211> 210

<212> PRT

<213> Homo sapiens

<400> 3862

Met	Ser	Gly	Asp	Lys	Leu	Leu	Ser	Glu	Leu	Gly	Tyr	Lys	Leu	Gly	Arg
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Thr	Ile	Gly	Glu	Gly	Ser	Tyr	Ser	Lys	Val	Lys	Val	Ala	Thr	Ser	Lys
		20						25					30		
Lys	Tyr	Lys	Gly	Thr	Val	Ala	Ile	Lys	Val	Val	Asp	Arg	Arg	Arg	Ala
		35					40					45			
Pro	Pro	Asp	Phe	Val	Asn	Lys	Phe	Leu	Pro	Arg	Glu	Leu	Ser	Ile	Leu
	50					55					60				
Arg	Gly	Val	Arg	His	Pro	His	Ile	Val	His	Val	Phe	Glu	Phe	Ile	Glu
65					70					75				80	
Val	Cys	Asn	Gly	Lys	Leu	Tyr	Ile	Val	Met	Glu	Ala	Ala	Ala	Thr	Asp
			85						90					95	
Leu	Leu	Gln	Ala	Val	Gln	Arg	Asn	Gly	Arg	Ile	Pro	Gly	Val	Gln	Ala
			100					105					110		
Arg	Asp	Leu	Phe	Ala	Gln	Ile	Ala	Gly	Ala	Val	Arg	Tyr	Leu	His	Asp
		115					120					125			
His	His	Leu	Val	His	Arg	Asp	Leu	Lys	Cys	Glu	Asn	Val	Leu	Leu	Ser
	130					135						140			
Pro	Asp	Glu	Arg	Arg	Val	Lys	Leu	Thr	Asp	Phe	Gly	Phe	Gly	Arg	Gln
145					150					155				160	
Ala	His	Gly	Tyr	Pro	Asp	Leu	Ser	Thr	Thr	Tyr	Cys	Gly	Ser	Ala	Val
			165						170					175	
Arg	Val	Thr	Arg	Val	Met	His	Phe	Leu	Ser	Thr	Tyr	Cys	Leu	Pro	Gly
		180						185					190		
Pro	Arg	Ala	His	Gly	Glu	Glu	Thr	Trp	Ala	His	Pro	Cys	Arg	Lys	Arg
		195					200					205			
Asp	Asn														
	210														

<210> 3863

<211> 341

<212> DNA

<213> Homo sapiens



&lt;400&gt; 3863

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 ctactttga ggttctctat tttctttaat cctggggtac agtcccacc tggacacttc  
 120  
 agttttgctc tcagttggga ctctgggaaa aaaactgtgt ggctgatctc cagcaggttc  
 180  
 ttctggtcga ggctccccga gaaccatctg gccatgggct ggcagccgag ttctcgagtc  
 240  
 gtccaggctg acggtacatt ccaggctagc catcctatca taatcgaatc tgagtagatt  
 300  
 tttatcaatc gcttgggaca agccattgaa ttttcggaga g  
 341

&lt;210&gt; 3864

&lt;211&gt; 108

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3864

Met Ala Cys Pro Lys Arg Leu Ile Lys Ile Tyr Ser Asp Ser Ile Met  
 1 5 10 15  
 Ile Gly Trp Leu Ala Trp Asn Val Pro Ser Ala Trp Thr Leu Arg Glu  
 20 25 30  
 Leu Gly Cys Gln Pro Met Ala Arg Trp Phe Ser Gly Ser Leu Asp Gln  
 35 40 45  
 Lys Asn Leu Val Glu Ile Ser His Thr Val Phe Phe Pro Glu Ser Gln  
 50 55 60  
 Leu Arg Ala Lys Leu Lys Cys Pro Gly Gly Ser Cys Thr Pro Gly Leu  
 65 70 75 80  
 Lys Lys Ile Gly Ser Leu Lys Val Ser Cys Glu Glu Phe Leu Leu Met  
 85 90 95  
 Gly Leu Arg Tyr Gln His Leu Asp Pro Pro Ser Arg  
 100 105

&lt;210&gt; 3865

&lt;211&gt; 492

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3865

nattgcaaaa caatatatga caggtctttt accagccaca accttcaaca aaccaatatt  
 60  
 aatcaggaat tgacgataag cttactacat ttgaaatta tctgacttcc ctcatgaaat  
 120  
 gagacctatg tgaagcccac ttaattttct gaaacttcac atcatgtacc ttcattgtaa  
 180  
 tattctgaca cttgtttcat gcagccatac cagtcacaac tttaaatttt tagtcagact  
 240  
 ttgtccacaa ggtttcagga taattaatac aaatgggttg ggccagccat cacacagcag  
 300  
 tctcctatctt acttcactac aactacagct ttcattcttc attacattac tttttctgag  
 360

tagtctgggt caaatagtagt aaactgaata ttccttaacc aaaatgcttg gaagtaggcc  
 420  
 gggagcagcg gctcaccctt gtaatcccag cattttggga ggccaaagca gacagatcac  
 480  
 tcaaggtcag ca  
 492

<210> 3866  
 <211> 109  
 <212> PRT  
 <213> Homo sapiens

<400> 3866  
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 Ser His Asn Phe Lys Phe Leu Val Arg Leu Cys Ser Gln Gly Phe Arg  
 20 25 30  
 Ile Ile Asn Thr Asn Gly Leu Gly Gln Pro Ser His Ser Ser Leu Leu  
 35 40 45  
 Phe Thr Ser Leu Gln Leu Gln Leu Ser Phe Phe Ile Thr Leu Leu Phe  
 50 55 60  
 Leu Ser Ser Leu Gly Gln Ile Val Gln Thr Glu Tyr Ser Leu Thr Lys  
 65 70 75 80  
 Met Leu Gly Ser Arg Pro Gly Ala Ala Ala His Pro Cys Asn Pro Ser  
 85 90 95  
 Ile Leu Gly Gly Gln Ser Arg Gln Ile Thr Gln Gly Gln  
 100 105

<210> 3867  
 <211> 1032  
 <212> DNA  
 <213> Homo sapiens

<400> 3867  
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 gagcagcatc agactgagat cagggatctc caggaccagc tctcagaaat gcacgatgaa  
 120  
 ctggacagtg caaagcgatc ggaggacagg gagaagggag ctctgattga ggagctctta  
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 240  
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 300  
 catgatcagg agatggacaa gctgaaggag caatatgatg ctgagttgca ggcctgagg  
 360  
 gagagtgtgg aagaagcaac caagaatgtc gaggtcttgg cgagcaggag caacacttca  
 420  
 gagaagacc aggcggggac tgaaatgccc gtgaagcttc tgcaggagga gaatgagaag  
 480  
 ctgcaggga gaagcgaaga gctggagcgg agagttgctc agcttcaaag gcagatcgag  
 540  
 gacctgaaag gcgatgaagc caaggcgaag gaaacgctga agaagtacga gggagaaata  
 600

cgacagttag aggaggccct tgtgcacgcc agaaaggaag aaaaagaagc tgtgtcagcc  
 660  
 agaagggccc tggagaatga actggaggct gctcagggaa atctgagtca gactaccag  
 720  
 gagcagaagc agttgtctga gaagctcaaa gaggagagtg agcagaagga gcagctaaga  
 780  
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 840  
 cagaaggaga tggcagacat tgttgaggcc tcccgtacct caaccctgga gctccagaac  
 900  
 cagctggatg agtataagga gaaaaaccgc agggagctcg cagaaatgca aagacagttg  
 960  
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 1020  
 atgcgtctga tg  
 1032

&lt;210&gt; 3868

&lt;211&gt; 344

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3868

Thr Arg Glu Gly Glu Leu Arg Lys Asn Leu Glu Glu Leu Phe Gln Val  
 1 5 10 15  
 Lys Met Glu Arg Glu Gln His Gln Thr Glu Ile Arg Asp Leu Gln Asp  
 20 25 30  
 Gln Leu Ser Glu Met His Asp Glu Leu Asp Ser Ala Lys Arg Ser Glu  
 35 40 45  
 Asp Arg Glu Lys Gly Ala Leu Ile Glu Glu Leu Leu Gln Ala Lys Gln  
 50 55 60  
 Asp Leu Gln Asp Leu Leu Ile Ala Lys Glu Glu Gln Glu Asp Leu Leu  
 65 70 75 80  
 Arg Lys Arg Glu Arg Glu Leu Thr Ala Leu Lys Gly Ala Leu Lys Glu  
 85 90 95  
 Glu Val Ser Ser His Asp Gln Glu Met Asp Lys Leu Lys Glu Gln Tyr  
 100 105 110  
 Asp Ala Glu Leu Gln Ala Leu Arg Glu Ser Val Glu Glu Ala Thr Lys  
 115 120 125  
 Asn Val Glu Val Leu Ala Ser Arg Ser Asn Thr Ser Glu Gln Asp Gln  
 130 135 140  
 Ala Gly Thr Glu Met Arg Val Lys Leu Leu Gln Glu Glu Asn Glu Lys  
 145 150 155 160  
 Leu Gln Gly Arg Ser Glu Glu Leu Glu Arg Arg Val Ala Gln Leu Gln  
 165 170 175  
 Arg Gln Ile Glu Asp Leu Lys Gly Asp Glu Ala Lys Ala Lys Glu Thr  
 180 185 190  
 Leu Lys Lys Tyr Glu Gly Glu Ile Arg Gln Leu Glu Glu Ala Leu Val  
 195 200 205  
 His Ala Arg Lys Glu Glu Lys Glu Ala Val Ser Ala Arg Arg Ala Leu  
 210 215 220  
 Glu Asn Glu Leu Glu Ala Ala Gln Gly Asn Leu Ser Gln Thr Thr Gln  
 225 230 235 240  
 Glu Gln Lys Gln Leu Ser Glu Lys Leu Lys Glu Glu Ser Glu Gln Lys

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<400> 3869
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120
tgatgcacac acattccaga aatgcagagg tatgctgctg ccacggggta ggggtgcggg
180
agggggcctg gcctcatggc cgcagaccgt gccccagccc gggcctggca ggtagctggc
240
cactgataaa tgccactggg atcctaggag aagctgggga ccatgcgtga ggtactgaag
300
gggaccatgg tggatggcat cctgggcact ttgtagcttg tctgaggga aggctctgct
360
tgccatagaa aagctggaca catgtcacc ttggggccctg acatcctaaa atgccccact
420
gactaccagt cactaggaga aaggtctccg gctatgccct tcccagtgat gcttgcccca
480
gagtgactgg tcacaggtgg gggacaggtt tgctccagaa accgtaggcc tttcttgtct
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600
tctgtatata aaatacctat tattagctgg agttgcacac atgcaggacc aggagagact
660
gcctgaggtt ctgcctggac cgaaggaggc ctgcctcaca gcacctctgt gaggggactg
720
tgctccttg gaagtcactt ctcttggtga ccgagctgac accccctcca cttggaaagc
780
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840
gggccttctg ggcctcagca gctccagccc actcctggcc tggcaggcca cctgcccacc
900
caccaccca tctgcctctg gccccagtg aagtcagaag aggcaggagc cccgcaggct
960
gtgagcctgg cgcaggtcgg ctgacagcga gcttctcatc tgcttgggtg tagagcggac
1020

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gctctcggca gctgcacgg cccggctcag ggccttggtg agctectcta ggtcgcccag  
 1080  
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 1140  
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 1200  
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<210> 3870

<211> 100

<212> PRT

<213> Homo sapiens

<400> 3870

Met	Ala	Ala	Glu	Ala	Phe	Pro	Ser	Asp	Lys	Leu	Gln	Ser	Ala	Gln	Asp
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Ala	Ile	His	His	Gly	Pro	Leu	Gln	Tyr	Leu	Thr	His	Gly	Pro	Gln	Leu
		20					25					30			
Leu	Leu	Gly	Ser	Gln	Trp	His	Leu	Ser	Val	Ala	Ser	Tyr	Leu	Pro	Gly
	35					40					45				
Pro	Gly	Trp	Gly	Thr	Val	Cys	Gly	His	Glu	Ala	Arg	Pro	Pro	Pro	Ala
	50					55				60					
Pro	Leu	Pro	Arg	Gly	Ser	Ser	Ile	Pro	Leu	His	Phe	Trp	Asn	Val	Cys
65				70					75					80	
Ala	Ser	Met	Met	Phe	Val	Tyr	Leu	Arg	His	Leu	Lys	Ile	Tyr	Phe	Arg
				85				90						95	
Tyr	Glu	Gly	Lys												
			100												

<210> 3871

<211> 473

<212> DNA

<213> Homo sapiens

<400> 3871

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 tgcctcacat ttcccagtgc ttcctctgca cccctccatt ggagtaaaaa ccacagtttg  
 120  
 tgggatgggt gagttgacag ctctgaatcc cagaaacctt aattttggct tatcttttga  
 180  
 taggctgagg gaaaatacaa agatgatcct gttgatctcc gccttgatat tgaacgtcgt  
 240  
 aaaaaacata aggagagaga tcttaaacga ggtaaatcga gagaatcagt ggattcccga  
 300  
 gactccagtc actcaaggga aaggtcagct gaaaaaacag agaaaactca taaaggatca  
 360  
 aagaaacaga agaaagacct ctgagagccg agacaagctg ggagcgaaag gagattttcc  
 420  
 cacaggaaaag tcttcttttt ccattactcg agaggcacag gtcaatgtcc gga  
 473

<210> 3872

&lt;211&gt; 66

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3872

Ala Glu Gly Lys Tyr Lys Asp Asp Pro Val Asp Leu Arg Leu Asp Ile  
1 5 10 15  
Glu Arg Arg Lys Lys His Lys Glu Arg Asp Leu Lys Arg Gly Lys Ser  
20 25 30  
Arg Glu Ser Val Asp Ser Arg Asp Ser Ser His Ser Arg Glu Arg Ser  
35 40 45  
Ala Glu Lys Thr Glu Lys Thr His Lys Gly Ser Lys Lys Gln Lys Lys  
50 55 60  
Asp Leu  
65

&lt;210&gt; 3873

&lt;211&gt; 869

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3873

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60  
aagtgtgcat taaactcaaa gattctgtct gtaatggaag cctatcacct gtccttcgag  
120  
aggaggcaga agtcgtccga ggccccctgtg cagtcccccgc agcgctccgt ggactccatc  
180  
agccaagagt cctccacttc cagcttctcc tccatgtcag ccggctcaag gcaggaggag  
240  
accaagaagg actacagaga ggtagaaaaa cttttgagag cagttgctga tggagatcta  
300  
gaaatgggtgc gttacctgtt ggaatggaca gaggaggacc tggaggatgc ggaggacact  
360  
gtcagtgcag cggacccccga attctgtcac ccgttggtgcc agtgccccaa gtgtgcccc  
420  
gtcagaaga ggctggcgaa ggctcctgcc agtgggcttg gtgtgaacgt gaccagccag  
480  
gacggctcct ccccgctgca tgcgcgcgcc ctgcacggcc gggcggacct catccgcctc  
540  
ctgctgaagc acggggccaa cgcaggtgcc aggaacgcag accaagccgt cccgctccac  
600  
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660  
cccaataaga aggacctcag tggaaacacg cccctcattt acgctgctc cggtggccat  
720  
cacgagcttg tggcactgct gctacagcac ggggcctcca ttaacgctct aacaataagg  
780  
ggcaacacag cgctgcacga ggctgtgatt gaaaagcacg tcttcgtggt agagctgctt  
840  
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869

&lt;210&gt; 3874

&lt;211&gt; 289

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3874

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Glu Ala Tyr His Leu Ser Phe Glu Arg Arg Gln Lys Ser Ser Glu Ala
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Ser Thr Ser Ser Phe Ser Ser Met Ser Ala Gly Ser Arg Gln Glu Glu
65           70           75           80
Thr Lys Lys Asp Tyr Arg Glu Val Glu Lys Leu Leu Arg Ala Val Ala
      85           90           95
Asp Gly Asp Leu Glu Met Val Arg Tyr Leu Leu Glu Trp Thr Glu Glu
      100          105          110
Asp Leu Glu Asp Ala Glu Asp Thr Val Ser Ala Ala Asp Pro Glu Phe
      115          120          125
Cys His Pro Leu Cys Gln Cys Pro Lys Cys Ala Pro Ala Gln Lys Arg
      130          135          140
Leu Ala Lys Val Pro Ala Ser Gly Leu Gly Val Asn Val Thr Ser Gln
145          150          155          160
Asp Gly Ser Ser Pro Leu His Val Ala Ala Leu His Gly Arg Ala Asp
      165          170          175
Leu Ile Arg Leu Leu Lys His Gly Ala Asn Ala Gly Ala Arg Asn
      180          185          190
Ala Asp Gln Ala Val Pro Leu His Leu Ala Cys Gln Gln Gly His Phe
      195          200          205
Gln Val Val Lys Cys Leu Leu Asp Ser Asn Ala Lys Pro Asn Lys Lys
      210          215          220
Asp Leu Ser Gly Asn Thr Pro Leu Ile Tyr Ala Cys Ser Gly Gly His
225          230          235          240Glu Leu
Val Ala Leu Leu Leu Gln His Gly Ala Ser Ile Asn Ala
      245          250          255
Leu Thr Ile Arg Gly Asn Thr Ala Leu His Glu Ala Val Ile Glu Lys
      260          265          270
His Val Phe Val Val Glu Leu Leu Leu Leu His Gly Ala Ser Val Arg
      275          280          285
Cys

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&lt;210&gt; 3875

&lt;211&gt; 2640

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3875

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120

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1740



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 2640

&lt;210&gt; 3876

&lt;211&gt; 824

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3876

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Gly	Gln	Glu	Leu	Leu	Val	Ala	Trp	Asn	Thr	Val	Ser	Thr	Gly	Leu	Val
			20						25					30	
Pro	Pro	Ala	Ala	Leu	Gly	Leu	Val	Ser	Ser	Arg	Thr	Ser	Gly	Ala	Val
			35						40					45	
Pro	Pro	Lys	Glu	Glu	Glu	Leu	Arg	Ala	Ala	Val	Glu	Val	Leu	Arg	Gly
			50				55				60				
His	Gly	Leu	His	Ser	Val	Leu	Glu	Glu	Trp	Phe	Val	Glu	Val	Leu	Gln
65					70					75				80	
Asn	Asp	Leu	Gln	Ala	Asn	Ile	Ser	Pro	Glu	Phe	Trp	Asn	Ala	Ile	Ser
				85						90				95	
Gln	Cys	Glu	Asn	Ser	Ala	Asp	Glu	Pro	Gln	Cys	Leu	Leu	Leu	Leu	Leu
			100						105					110	
Asp	Ala	Phe	Gly	Leu	Leu	Glu	Ser	Arg	Leu	Asp	Pro	Tyr	Leu	Arg	Ser
			115					120					125		
Leu	Glu	Leu	Leu	Glu	Lys	Trp	Thr	Arg	Leu	Gly	Leu	Leu	Met	Gly	Thr

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Gly Ala Gln Gly Leu Arg Glu Glu Val His Thr Met Leu Arg Gly Val		
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Leu Phe Phe Ser Thr Pro Arg Thr Phe Gln Glu Met Ile Gln Arg Leu		160
	165	170
		175
Tyr Gly Cys Phe Leu Arg Val Tyr Met Gln Ser Lys Arg Lys Gly Glu		
	180	185
		190
Gly Gly Thr Asp Pro Glu Leu Glu Gly Glu Leu Asp Ser Arg Tyr Ala		
	195	200
		205
Arg Arg Arg Tyr Tyr Arg Leu Leu Gln Ser Pro Leu Cys Ala Gly Cys		
	210	215
		220
Ser Ser Asp Lys Gln Gln Cys Trp Cys Arg Gln Ala Leu Glu Gln Phe		
	225	230
		235
His Gln Leu Ser Gln Val Leu His Arg Leu Ser Leu Leu Glu Arg Val		
	245	250
		255
Ser Ala Glu Ala Val Thr Thr Thr Leu His Gln Val Thr Arg Glu Arg		
	260	265
		270
Met Glu Asp Arg Cys Arg Gly Glu Tyr Glu Arg Ser Phe Leu Arg Glu		
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		285
Phe His Arg Trp Ile Glu Arg Val Val Gly Trp Leu Gly Lys Val Phe		
	290	295
		300
Leu Gln Asp Gly Pro Ala Arg Pro Ala Ser Pro Glu Ala Gly Asn Thr		
	305	310
		315
Leu Arg Arg Trp Arg Cys His Val Gln Arg Phe Phe Tyr Arg Ile Tyr		
	325	330
		335
Ala Ser Leu Arg Ile Glu Glu Leu Phe Ser Ile Val Arg Asp Phe Pro		
	340	345
		350
Asp Ser Arg Pro Ala Ile Glu Asp Leu Lys Tyr Cys Leu Glu Arg Thr		
	355	360
		365
Asp Gln Arg Gln Gln Leu Leu Val Ser Leu Lys Ala Ala Leu Glu Thr		
	370	375
		380
Arg Leu Leu His Pro Gly Val Asn Thr Cys Asp Ile Ile Thr Leu Tyr		
	385	390
		395
Ile Ser Ala Ile Lys Ala Leu Arg Val Leu Asp Pro Ser Met Val Ile		
	405	410
		415
Leu Glu Val Ala Cys Glu Pro Ile Arg Arg Tyr Leu Arg Thr Arg Glu		
	420	425
		430
Asp Thr Val Arg Gln Ile Val Ala Gly Leu Thr Gly Asp Ser Asp Gly		
	435	440
		445
Thr Gly Asp Leu Ala Val Glu Leu Ser Lys Thr Asp Pro Ala Ser Leu		
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Glu Thr Gly Gln Asp Ser Glu Asp Asp Ser Gly Glu Pro Glu Asp Trp		
	465	470
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Val Pro Asp Pro Val Asp Ala Asp Pro Gly Lys Ser Ser Ser Lys Arg		
	485	490
		495
Arg Ser Ser Asp Ile Ile Ser Leu Leu Val Ser Ile Tyr Gly Ser Lys		
	500	505
		510
Asp Leu Phe Ile Asn Glu Tyr Arg Ser Leu Leu Ala Asp Arg Leu Leu		
	515	520
		525
His Gln Phe Ser Phe Ser Pro Glu Arg Glu Ile Arg Asn Val Glu Leu		
	530	535
		540
Leu Lys Leu Arg Phe Gly Glu Ala Pro Met His Phe Cys Glu Val Met		
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		555
Leu Lys Asp Met Ala Asp Ser Arg Arg Ile Asn Ala Asn Ile Arg Glu		
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<211> 1112
<212> DNA
<213> Homo sapiens
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120
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180
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240
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420
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 aagcgtttgg cagccttgga agcgaggcaa aaagcaaaag aagtgcagaa gaagctgggtg  
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 840  
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 aaaagagatg ataaaccaa agaaagtaaa gc  
 1112

&lt;210&gt; 3878

&lt;211&gt; 370

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3878

Xaa	Asn	Ser	Met	Lys	His	Glu	Asp	Pro	Ser	Ile	Ile	Ser	Met	Glu	Asp
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Gly	Ser	Pro	Tyr	Val	Asn	Gly	Ser	Leu	Gly	Glu	Val	Thr	Pro	Cys	Gln
		20					25						30		
His	Ala	Lys	Lys	Ala	Asn	Gly	Pro	Asn	Tyr	Ile	Gln	Pro	Gln	Lys	Arg
		35					40					45			
Gln	Thr	Thr	Phe	Glu	Ser	Gln	Asp	Arg	Lys	Ala	Val	Ser	Pro	Ser	Ser
		50				55					60				
Ser	Glu	Lys	Arg	Ser	Lys	Asn	Pro	Ile	Ser	Arg	Pro	Leu	Glu	Gly	Lys
65					70				75					80	
Lys	Ser	Leu	Ser	Leu	Ser	Ala	Lys	Thr	His	Asn	Ile	Gly	Phe	Asp	Lys
				85				90						95	
Asp	Ser	Cys	His	Ser	Thr	Thr	Lys	Thr	Glu	Ala	Ser	Gln	Glu	Glu	Arg
		100					105						110		
Ser	Asp	Ser	Ser	Gly	Leu	Thr	Ser	Leu	Lys	Lys	Ser	Pro	Lys	Val	Ser
		115					120					125			
Ser	Lys	Asp	Thr	Arg	Glu	Ile	Lys	Thr	Asp	Phe	Ser	Leu	Ser	Ile	Ser
		130				135					140				
Asn	Ser	Ser	Asp	Val	Ser	Ala	Lys	Asp	Lys	His	Ala	Glu	Asp	Asn	Glu
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Lys	Arg	Leu	Ala	Ala	Leu	Glu	Ala	Arg	Gln	Lys	Ala	Lys	Glu	Val	Gln
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<210> 3879
<211> 2769
<212> DNA
<213> Homo sapiens
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1140  
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1200  
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<211> 116

<212> PRT

<213> Homo sapiens

<400> 3880

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		20					25					30			
Ala	Ile	Asp	Leu	Ser	Arg	Asn	Gln	Phe	Gln	Asp	Phe	Pro	Glu	Gln	Leu
	35					40					45				
Thr	Ala	Leu	Pro	Ala	Leu	Glu	Thr	Ile	Asn	Leu	Glu	Glu	Asn	Glu	Ile
	50				55			60							
Val	Asp	Val	Pro	Val	Glu	Lys	Leu	Ala	Ala	Met	Pro	Ala	Leu	Arg	Ser
65				70				75					80		
Ile	Asn	Leu	Arg	Phe	Asn	Pro	Leu	Asn	Ala	Glu	Val	Arg	Val	Ile	Ala
		85				90						95			
Pro	Pro	Leu	Ile	Lys	Phe	Asp	Met	Leu	Met	Ser	Pro	Glu	Gly	Ala	Arg
		100				105						110			
Ala	Pro	Leu	Pro												
		115													

<210> 3881

<211> 1393

<212> DNA

<213> Homo sapiens

<400> 3881

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 300  
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 360  
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 1260  
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 1380  
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 1393

&lt;210&gt; 3882

&lt;211&gt; 277

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3882

Asp	Leu	Gly	Pro	Trp	Ser	Gln	Tyr	Ala	Pro	Pro	Glu	Trp	Ser	Gln	Gly
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Gln	Met	Pro	Ser	Leu	Asn	Trp	Pro	Glu	Ala	Leu	Pro	Pro	Pro	Pro	Pro



35 40 45  
 Ser Cys Glu Leu Ser Cys Leu Glu Gly Pro Glu Glu Glu Leu Glu Gly  
 50 55 60  
 Ser Ser Glu Pro Glu Glu Trp Cys Pro Pro Met Pro Glu Arg Ser His  
 65 70 75 80  
 Leu Thr Glu Pro Ser Ser Ser Gly Gly Trp Leu Val Thr Pro Ser Arg  
 85 90 95  
 Arg Glu Thr Pro Ser Pro Thr Pro Ser Tyr Gly Gln Gln Ser Thr Ala  
 100 105 110  
 Thr Leu Thr Pro Ser Pro Pro Asp Pro Pro Gln Pro Pro Thr Asp Met  
 115 120 125  
 Pro His Leu His Gln Met Pro Arg Arg Val Pro Leu Gly Pro Ser Ser  
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 Pro Ala Pro Ser Thr Ala Ser Ser Ala Pro Gly Arg Thr Trp Gln Gly  
 180 185 190  
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 Lys Lys Pro Lys Ala Leu Pro Tyr Arg Arg Glu Asn Ser Pro Gly Asp  
 210 215 220  
 Leu Pro Pro Pro Pro Leu Pro Pro Pro Glu Xaa Arg Gly Glu Leu Gly  
 225 230 235 240  
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 Gly Ala Pro Pro Arg  
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&lt;210&gt; 3883

&lt;211&gt; 943

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3883

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&lt;210&gt; 3884

&lt;211&gt; 199

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3884

Xaa	Arg	Gly	Arg	Gly	Ser	Glu	Lys	Arg	Lys	Lys	Lys	Ser	Arg	Lys	Asp
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			20					25					30		
Lys	Ala	Arg	Arg	Arg	Thr	Arg	Ser	Ser	Ser	Ser	Ser	Ser	Ser	Ser	Ser
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Ser	Ser	Ser	Ser	Ser	Ser	Ser	Ser	Ser	Ser	Ser	Ser	Ser	Ser	Ser	Ser
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Lys	Lys	Lys	Arg	Lys	Lys	Leu	Lys	Lys	Lys	Gly	Lys	Glu	Lys	Ala	Glu
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Ala	Gln	Gln	Val	Glu	Ala	Leu	Pro	Gly	Pro	Ser	Leu	Asp	Gln	Trp	His
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Arg	Gln	Ser	Val	Ile	Arg	Lys	Val	Val	Asp	Pro	Glu	Thr	Gly	Arg	Thr
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Arg	Leu	Ile	Lys	Gly	Asp	Gly	Glu	Val	Leu	Glu	Glu	Ile	Val	Thr	Lys
			165						170					175	
Glu	Arg	His	Arg	Glu	Ile	Asn	Lys	Val	Gly	Val	Ala	Pro	Leu	Pro	Ala
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&lt;210&gt; 3885

&lt;211&gt; 1671

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3885

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<210> 3886

<211> 277

<212> PRT

<213> Homo sapiens

<400> 3886

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65					70					75				80	
Thr	Ala	Ala	Lys	Phe	Lys	Leu	Thr	Arg	His	Gln	Ala	Val	Thr	Gly	Ser
			85						90					95	
Arg	Asp	Arg	Thr	Val	Lys	Glu	Trp	Asp	Leu	Gly	Arg	Ala	Tyr	Cys	Ser
			100					105					110		
Arg	Thr	Ile	Asn	Val	Leu	Ser	Tyr	Cys	Asn	Asp	Val	Val	Xaa	Trp	Gly
		115					120					125			
Pro	Tyr	His	His	Xaa	Ser	Gly	His	Asn	Asp	Gln	Lys	Ile	Arg	Phe	Trp
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145					150					155				160	
Arg	Val	Thr	Ser	Leu	Ser	Leu	Ser	Xaa	Arg	Pro	Thr	Xaa	His	Leu	Leu
				165					170					175	
Ser	Cys	Ser	Arg	Asp	Asn	Thr	Leu	Lys	Val	Ile	Asp	Leu	Arg	Val	Ser
			180					185					190		
Asn	Ile	Arg	Gln	Val	Phe	Arg	Ala	Asp	Gly	Phe	Lys	Cys	Gly	Ser	Asp
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Trp	Thr	Lys	Ala	Val	Phe	Ser	Pro	Asp	Arg	Ser	Tyr	Ala	Leu	Ala	Gly
	210					215					220				
Ser	Cys	Asp	Gly	Ala	Leu	Tyr	Ile	Trp	Asp	Val	Asp	Thr	Gly	Lys	Leu
225					230					235				240	
Glu	Ser	Arg	Leu	Gln	Gly	Pro	His	Cys	Ala	Ala	Val	Asn	Ala	Val	Ala
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Trp	Cys	Tyr	Ser	Gly	Ser	His	Met	Val	Ser	Val	Asp	Gln	Gly	Arg	Lys
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<210> 3887

<211> 5612

<212> DNA

<213> Homo sapiens

<400> 3887

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&lt;210&gt; 3888

&lt;211&gt; 1230

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3888

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		20						25					30		
Glu	Leu	Gln	Lys	Asp	Ser	Ile	Lys	Leu	Asp	Asp	Asp	Ser	Glu	Arg	Lys
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Val	Val	Lys	Met	Ile	Leu	Lys	Leu	Leu	Glu	Asp	Lys	Asn	Gly	Glu	Val
		50				55					60				
Gln	Asn	Leu	Ala	Val	Lys	Cys	Leu	Gly	Pro	Leu	Val	Ser	Lys	Val	Lys
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Val	Ile	Gly	Glu	Leu	Pro	Pro	Ala	Ser	Ser	Gly	Ser	Ala	Leu	Ala	Ala
		115					120					125			
Asn	Val	Cys	Lys	Lys	Ile	Thr	Gly	Arg	Leu	Thr	Ser	Ala	Ile	Ala	Lys
		130				135					140				
Gln	Glu	Asp	Val	Ser	Val	Gln	Leu	Glu	Ala	Leu	Asp	Ile	Met	Ala	Asp
145					150					155				160	
Met	Leu	Ser	Arg	Gln	Gly	Gly	Leu	Leu	Val	Asn	Phe	His	Pro	Ser	Ile



				165						170					175
Leu	Thr	Cys	Leu	Leu	Pro	Gln	Leu	Thr	Ser	Pro	Arg	Leu	Ala	Val	Arg
			180					185					190		
Lys	Arg	Thr	Ile	Ile	Ala	Leu	Gly	His	Leu	Val	Met	Ser	Cys	Gly	Asn
		195					200					205			
Ile	Val	Phe	Val	Asp	Leu	Ile	Glu	His	Leu	Leu	Ser	Glu	Leu	Ser	Lys
	210					215					220				
Asn	Asp	Ser	Met	Ser	Thr	Thr	Arg	Thr	Tyr	Ile	Gln	Cys	Ile	Ala	Ala
225					230					235				240	
Ile	Ser	Arg	Gln	Ala	Gly	His	Arg	Ile	Gly	Glu	Tyr	Leu	Glu	Lys	Ile
			245						250				255		
Ile	Pro	Leu	Val	Val	Lys	Phe	Cys	Asn	Val	Asp	Asp	Asp	Glu	Leu	Arg
	260						265					270			
Glu	Tyr	Cys	Ile	Gln	Ala	Phe	Glu	Ser	Phe	Val	Arg	Arg	Cys	Pro	Lys
	275						280				285				
Glu	Val	Tyr	Pro	His	Val	Ser	Thr	Ile	Ile	Asn	Ile	Cys	Leu	Lys	Tyr
	290					295				300					
Leu	Thr	Tyr	Asp	Pro	Asn	Tyr	Asn	Tyr	Asp	Asp	Glu	Asp	Glu	Asp	Glu
305					310					315				320	
Asn	Ala	Met	Asp	Ala	Asp	Gly	Gly	Asp	Asp	Asp	Asp	Gln	Gly	Ser	Asp
			325						330				335		
Asp	Glu	Tyr	Ser	Asp	Asp	Asp	Asp	Met	Ser	Trp	Lys	Val	Arg	Arg	Ala
	340						345					350			
Ala	Ala	Lys	Cys	Leu	Asp	Ala	Val	Val	Ser	Thr	Arg	His	Glu	Met	Leu
	355						360				365				
Pro	Glu	Phe	Tyr	Lys	Thr	Val	Ser	Pro	Ala	Leu	Ile	Ser	Arg	Phe	Lys
	370					375					380				
Glu	Arg	Glu	Glu	Asn	Val	Lys	Ala	Asp	Val	Phe	His	Ala	Tyr	Leu	Ser
385					390					395				400	
Leu	Leu	Lys	Gln	Thr	Arg	Pro	Val	Gln	Ser	Trp	Leu	Cys	Asp	Pro	Asp
			405						410				415		
Ala	Met	Glu	Gln	Gly	Glu	Thr	Pro	Leu	Thr	Met	Leu	Gln	Ser	Gln	Val
		420						425				430			
Pro	Asn	Ile	Val	Lys	Ala	Leu	His	Lys	Gln	Met	Lys	Glu	Lys	Ser	Val
	435						440				445				
Lys	Thr	Arg	Gln	Cys	Cys	Phe	Asn	Met	Leu	Thr	Glu	Leu	Val	Asn	Val
	450					455					460				
Leu	Pro	Gly	Ala	Leu	Thr	Gln	His	Ile	Pro	Val	Leu	Val	Pro	Gly	Ile
465					470					475				480	
Ile	Phe	Ser	Leu	Asn	Asp	Lys	Ser	Ser	Ser	Ser	Asn	Leu	Lys	Ile	Asp
			485					490				495			
Ala	Leu	Ser	Cys	Leu	Tyr	Val	Ile	Leu	Cys	Asn	His	Ser	Pro	Gln	Val
	500							505				510			
Phe	His	Pro	His	Val	Gln	Ala	Leu	Val	Pro	Pro	Val	Val	Ala	Cys	Val
	515						520					525			
Gly	Asp	Pro	Phe	Tyr	Lys	Ile	Thr	Ser	Glu	Ala	Leu	Leu	Val	Thr	Gln
	530					535					540				
Gln	Leu	Val	Lys	Val	Ile	Arg	Pro	Leu	Asp	Gln	Pro	Ser	Ser	Phe	Asp
545					550					555				560	
Ala	Thr	Pro	Tyr	Ile	Lys	Asp	Leu	Phe	Thr	Cys	Thr	Ile	Lys	Arg	Leu
			565						570				575		
Lys	Ala	Ala	Asp	Ile	Asp	Gln	Glu	Val	Lys	Glu	Arg	Ala	Ile	Ser	Cys
	580							585				590			
Met	Gly	Gln	Ile	Ile	Cys	Asn	Leu	Gly	Asp	Asn	Leu	Gly	Ser	Asp	Leu

595	600	605
Pro Asn Thr Leu Gln Ile Phe	Leu Glu Arg Leu Lys Asn Glu Ile Thr	
610	615	620
Arg Leu Thr Thr Val Lys Ala	Leu Thr Leu Ile Ala Gly Ser Pro Leu	
625	630	635
Lys Ile Asp Leu Arg Pro Val	Leu Gly Glu Gly Val Pro Ile Leu Ala	640
	645	650
Ser Phe Leu Arg Lys Asn Gln Arg	Ala Leu Lys Leu Gly Thr Leu Ser	655
	660	665
Ala Leu Asp Ile Leu Ile Lys Asn	Tyr Ser Asp Ser Leu Thr Ala Ala	670
	675	680
Met Ile Asp Ala Val Leu Asp	Glu Leu Pro Pro Leu Ile Ser Glu Ser	685
	690	695
Asp Met His Val Ser Gln Met	Ala Ile Ser Phe Leu Thr Thr Leu Ala	700
705	710	715
Lys Val Tyr Pro Ser Ser Leu Ser	Lys Ile Ser Gly Ser Ile Leu Asn	720
	725	730
Glu Leu Ile Gly Leu Val Arg Ser	Pro Leu Leu Gln Gly Gly Ala Leu	735
	740	745
Ser Ala Met Leu Asp Phe Phe	Gln Ala Leu Val Val Thr Gly Thr Asn	750
	755	760
Asn Leu Gly Tyr Met Asp Leu Leu	Arg Met Leu Thr Gly Pro Val Tyr	765
	770	775
Ser Gln Ser Thr Ala Leu Thr His	Lys Gln Ser Tyr Tyr Ser Ile Ala	780
785	790	795
Lys Cys Val Ala Ala Leu Thr Arg	Ala Cys Pro Lys Glu Gly Pro Ala	800
	805	810
Val Val Gly Gln Phe Ile Gln Asp	Val Lys Asn Ser Arg Ser Thr Asp	815
	820	825
Ser Ile Arg Leu Leu Ala Leu Leu	Ser Leu Gly Glu Val Gly His His	830
	835	840
Ile Asp Leu Ser Gly Gln Leu Glu	Leu Lys Ser Val Ile Leu Glu Ala	845
	850	855
Phe Ser Ser Pro Ser Glu Glu Val	Lys Ser Ala Ala Ser Tyr Ala Leu	860
865	870	875
Gly Ser Ile Ser Val Gly Asn Leu	Pro Glu Tyr Leu Pro Phe Val Leu	880
	885	890
Gln Glu Ile Thr Ser Gln Pro Lys	Arg Gln Tyr Leu Leu Leu His Ser	895
	900	905
Leu Lys Glu Ile Ile Ser Ser Ala	Ser Val Val Gly Leu Lys Pro Tyr	910
	915	920
Val Glu Asn Ile Trp Ala Leu Leu	Leu Lys His Cys Glu Cys Ala Glu	925
	930	935
Glu Gly Thr Arg Asn Val Val Ala	Glu Cys Leu Gly Lys Leu Thr Leu	940
945	950	955
Ile Asp Pro Glu Thr Leu Leu Pro	Arg Leu Lys Gly Tyr Leu Ile Ser	960
	965	970
Gly Ser Ser Tyr Ala Arg Ser Ser	Val Val Thr Ala Val Lys Phe Thr	975
	980	985
Ile Ser Asp His Pro Gln Pro Ile	Asp Pro Leu Leu Lys Asn Cys Ile	990
	995	1000
Gly Asp Phe Leu Lys Thr Leu Glu	Asp Pro Asp Leu Asn Val Arg Arg	1005
	1010	1015
Val Ala Leu Val Thr Phe Asn Ser	Ala Ala His Asn Lys Pro Ser Leu	1020

1025	1030	1035	1040
Ile Arg Asp Leu Leu Asp Thr Val Leu Pro His Leu Tyr Asn Glu Thr			
	1045	1050	1055
Lys Val Arg Lys Glu Leu Ile Arg Glu Val Glu Met Gly Pro Phe Lys			
	1060	1065	1070
His Thr Val Asp Asp Gly Leu Asp Ile Arg Lys Ala Ala Phe Glu Cys			
	1075	1080	1085
Met Tyr Thr Leu Leu Asp Ser Cys Leu Asp Arg Leu Asp Ile Phe Glu			
	1090	1095	1100
Phe Leu Asn His Val Glu Asp Gly Leu Lys Asp His Tyr Asp Ile Lys			
1105	1110	1115	1120
Met Leu Thr Phe Leu Met Leu Val Arg Leu Ser Thr Leu Cys Pro Ser			
	1125	1130	1135
Ala Val Leu Gln Arg Leu Asp Arg Leu Val Glu Pro Leu Arg Ala Thr			
	1140	1145	1150
Cys Thr Thr Lys Val Lys Ala Asn Ser Val Lys Gln Glu Phe Glu Lys			
	1155	1160	1165
Gln Asp Glu Leu Lys Arg Ser Ala Met Arg Ala Val Ala Ala Leu Leu			
	1170	1175	1180
Thr Ile Pro Glu Ala Glu Lys Ser Pro Leu Met Ser Glu Phe Gln Ser			
1185	1190	1195	1200
Gln Ile Ser Ser Asn Pro Glu Leu Ala Ala Ile Phe Glu Ser Ile Gln			
	1205	1210	1215
Lys Asp Ser Ser Ser Thr Asn Leu Glu Ser Met Asp Thr Ser			
	1220	1225	1230

&lt;210&gt; 3889

&lt;211&gt; 556

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3889

gctctgccgg gccctcgct ggaccagtgg caccgatcag ctggggagga agaggatggc  
 60  
 ccagtcctga cggatgagca ggccccaat ccaggccatg aagcccatga ccaaggagga  
 120  
 tgggatgccc ggcagagcat catccgcaag gtggtggacc ctgagacggg gcgcaccagg  
 180  
 cttattaagg gagatggcga ggtcctagag gaaatcgtaa ccaaagaacg acacagagag  
 240  
 atcaacaagc aagccaccgc aggggactgc ctggccttcc agatgcgagc tgggttgctt  
 300  
 ccctgagggc ccccgctggc caaggcctgt ggacgacgct ggcggcccag cctgggcagg  
 360  
 tttcaggggtg ccagtgggaa gcctgatggg tgctggtggc ctttcccccg tggattggtc  
 420  
 tctggcccag cccagtctct tctcaggggc agggggtgga ggttggggtc accggcctgc  
 480  
 ttggcacccc catctgaaag agcagcactt ctcagctatt aaaggcccc tgatagaca  
 540  
 aaaaaaaaaa aaaaaa  
 556

&lt;210&gt; 3890

&lt;211&gt; 101

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3890

Ala Leu Pro Gly Pro Ser Leu Asp Gln Trp His Arg Ser Ala Gly Glu  
 1 5 10 15  
 Glu Glu Asp Gly Pro Val Leu Thr Asp Glu Gln Val Pro Asn Pro Gly  
 20 25 30  
 His Glu Ala His Asp Gln Gly Gly Trp Asp Ala Arg Gln Ser Ile Ile  
 35 40 45  
 Arg Lys Val Val Asp Pro Glu Thr Gly Arg Thr Arg Leu Ile Lys Gly  
 50 55 60  
 Asp Gly Glu Val Leu Glu Glu Ile Val Thr Lys Glu Arg His Arg Glu  
 65 70 75 80  
 Ile Asn Lys Gln Ala Thr Arg Gly Asp Cys Leu Ala Phe Gln Met Arg  
 85 90 95  
 Ala Gly Leu Leu Pro  
 100

&lt;210&gt; 3891

&lt;211&gt; 1687

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3891

ncctaggcta cacagaccgt gtggtgagag ctttccgctg ggaggagcta ggtgagggtc  
 60  
 ctgaacatct ggccgtatcc acaacaagaa tgtctccact cacctaattg gcaacatcaa  
 120  
 acaggccacg gcaactgagag tagtggctct ggccctcttg cctgtgcac cctggatggg  
 180  
 aactgaagc tcatggaaga aatggaagaa gcagacaagc tgctgtggtc agtgcagggtg  
 240  
 gatcaccagc tctttgccct ggagaaactg gatgtcaccc gcaacgggca tgaggaggta  
 300  
 gttgcatgag cctgggatgg acagacatat atcattgatc acaaccgcac cgtcgtccgc  
 360  
 ttccaagtgg atgaaaatat ccgtgccttc tgtgcaggcc tgtacgctg caaagagggc  
 420  
 cgcaacagcc cctgcctcgt atatgtcact ttcaaccaga agatctatgt gtactgggag  
 480  
 gtgcagctgg agcggatgga gtctaccaat ctggtgaaac tgctggagac caagccgagt  
 540  
 accacagcct gctgcaggag ctgggctggtg atcctgacga cctccctgtg actcgtgccc  
 600  
 tgcttcacca aacgtcttac catccagacc agccaccaca gtgtgctccc tcaagcctcc  
 660  
 aggatccac ctagctgtac ttgctcata gctggtgaag gattcttctg aacccccacc  
 720  
 ctacccccta aaggtatctg tggatttggc aggatagggg atatgcatta cagaaatgca  
 780  
 ggatttgact ctgggcatga aagatggcag cagccctagg gtgaccgtga actatagacc  
 840

tcgcagtctt ttccggtgaaa gaagagacaa gttgaccctc tgcccatttc cttatggacc  
 900  
 tcacccatca tgccagcagg gtcataggac ctggccttgt tccaaatcat ctgggacatg  
 960  
 acccactccc cactgtcact gtgttgaaaa cagagacttg tttgtgtggc cccaacaccc  
 1020  
 ataaggaaac caggcttttag gcccagggga gcagtggagg taagggtccc accccatctt  
 1080  
 aagctctgtc ttccgtggca caattccaag ttcttgacgt tagtaattgt taaaggaatg  
 1140  
 gcaaactgtt ttgttttgaa ggatctttct acagtctggt cttacccatg ttcttagcaa  
 1200  
 ccctgagatg attttcttcc atttaccaaa gcagccgggt cagtgtcttc tcacgttgcc  
 1260  
 gtattcttca ggtattagtc agcttcagaa gccctgctcc catttttcca cccaccatt  
 1320  
 cccccataaa acagcttatt gtctccaaga caatagacat ttaaaatgtg atgcggggtt  
 1380  
 atgatccaga ccacaatcag aattatatct tgggtcattt atgtgccgtc tgttcttgat  
 1440  
 tctctatgct ctaaactcgggt gtttttcaaa ctgtggttgc agtcctttgg tggattatgg  
 1500  
 ccagcatttt ttaaataggt agaatagaat aaagtaaaat agaaaatagc agagtacatt  
 1560  
 gctctcagtg taggtaagta ttgttttggt agtcatatgt gcagtgtgtg actgagtgcc  
 1620  
 atgtaaaatg tattcctgct gtggtgaagct gtggtcgagg agtttgaaag ccattgcttt  
 1680  
 caaatc  
 1687

&lt;210&gt; 3892

&lt;211&gt; 179

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3892

Val	Arg	Val	Leu	Asn	Ile	Trp	Pro	Tyr	Pro	Gln	Gln	Glu	Cys	Leu	His
1				5					10					15	
Ser	Pro	Asn	Trp	Gln	His	Gln	Thr	Gly	His	Gly	Thr	Glu	Ser	Ser	Gly
		20						25					30		
Ser	Gly	Leu	Phe	Ala	Leu	Cys	Thr	Leu	Asp	Gly	Thr	Leu	Lys	Leu	Met
		35					40					45			
Glu	Glu	Met	Glu	Glu	Ala	Asp	Lys	Leu	Leu	Trp	Ser	Val	Gln	Val	Asp
		50				55					60				
His	Gln	Leu	Phe	Ala	Leu	Glu	Lys	Leu	Asp	Val	Thr	Gly	Asn	Gly	His
65				70					75					80	
Glu	Glu	Val	Val	Ala	Cys	Ala	Trp	Asp	Gly	Gln	Thr	Tyr	Ile	Ile	Asp
			85					90						95	
His	Asn	Arg	Thr	Val	Val	Arg	Phe	Gln	Val	Asp	Glu	Asn	Ile	Arg	Ala
		100						105					110		
Phe	Cys	Ala	Gly	Leu	Tyr	Ala	Cys	Lys	Glu	Gly	Arg	Asn	Ser	Pro	Cys
		115				120						125			
Leu	Val	Tyr	Val	Thr	Phe	Asn	Gln	Lys	Ile	Tyr	Val	Tyr	Trp	Glu	Val

130		135		140
Gln Leu Glu Arg Met Glu Ser Thr Asn Leu Val Lys Leu Leu Glu Thr				
145		150		155
Lys Pro Ser Thr Thr Ala Cys Cys Arg Ser Trp Ala Trp Ile Leu Thr				
	165		170	175
Thr Ser Leu				

&lt;210&gt; 3893

&lt;211&gt; 1591

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3893

cgcgttctgc agaagttaga tgacgatgga ttgccgttta taggagcaaa actgcagtac  
 60  
 ggagatccgt attacagcta cctcaacctc aacaccgggg aaagttttgt gatgtactat  
 120  
 aagagtaaag aaaattgtgt tgtggataac atcaaagtgt gcagtaatga cactgggagt  
 180  
 ggaaaattca agtgtgtttg catcactatg agagtgcctc ggaacccaac tatcggagat  
 240  
 aaatttgcca gtcgccatgg gcagaagggc attttaagca gattgtggcc ggctgaggac  
 300  
 atgcctttta ctgagagtgg gatgggtcca gacattctgt tcaatcccca tggttttcca  
 360  
 tcccgcata ccattgggat gttaattgag agtatggccg ggaagtctgc agctttgcat  
 420  
 ggtctctgcc atgatgctac acccttcac tctcagagg agaactcggc cttagaatac  
 480  
 tttggtgaga tgttaaaggc tgctggctac aatttctatg gcaccgagag gttatatagt  
 540  
 ggcacagtg ggctagaact ggaagcagac atcttcatag gagtggttta ttatcagcgc  
 600  
 ttacgccata tgggtctcaga caaatttcaa gtaaggacaa ctggagcccg agacagagtc  
 660  
 accaaccagc ctattggggg aagaaatgtc cagggtggaa tccgttttgg ggagatggaa  
 720  
 cgggatgcgc ttttagctca tggtagatct tttctcctc atgaccgct cttcaactgc  
 780  
 tcagatcggt cggtagccca tgtgtgtgtg aagtgtggca gtttactctc tccactgttg  
 840  
 gagaagccac ccccttcttg gtctgccatg cgcaacagaa aatacaactg tactctgtgt  
 900  
 agtcgcagtg acactatcga tactgtttct gtgccttatg ttttcggta tttttagct  
 960  
 gaactggcag ctatgaacat caaagtgaat ctggatgttg ttttaactga tgttgacctt  
 1020  
 ttggattaag aggactatca gattaaagca aatgtaatt ttaattcaat gaagatatca  
 1080  
 ttaccagggt actcttgaga tttttcaacg gtgttagaac tctcaacca gacctgaaaa  
 1140  
 ccaagtatgc aaggtttctg aatctctctg gtagattaac tattgacaat gattttctgt  
 1200

tatctttgtt caaaaagttc atgtcttctc aaaatatgaa atattgataa atggaagagc  
 1260  
 atacgggtgac aagtctcctt tccaacccca gggtccctac accctgctct cagcaggcag  
 1320  
 tgagtgtcac acacctgtta atccatcttg agcaggacag tactatacaa atagaatgca  
 1380  
 agctgtaatg taattttata ttttcttata gccacgttga agtaaaaaca aacaggtaca  
 1440  
 gtgtttttta ccagctttat agaagtacag ttgttacata tttaatgaat acaatttgat  
 1500  
 gggcttgact atatgcacac accttttgata ccatcaccac aatcagggta ataaacatac  
 1560  
 ctgtcatctc caaaaaaaaa aaaaaaaaaa a  
 1591

<210> 3894

<211> 334

<212> PRT

<213> Homo sapiens

<400> 3894

Arg	Val	Leu	Gln	Lys	Leu	Asp	Asp	Asp	Gly	Leu	Pro	Phe	Ile	Gly	Ala
1				5					10					15	
Lys	Leu	Gln	Tyr	Gly	Asp	Pro	Tyr	Tyr	Ser	Tyr	Leu	Asn	Leu	Asn	Thr
		20						25				30			
Gly	Glu	Ser	Phe	Val	Met	Tyr	Tyr	Lys	Ser	Lys	Glu	Asn	Cys	Val	Val
		35					40					45			
Asp	Asn	Ile	Lys	Val	Cys	Ser	Asn	Asp	Thr	Gly	Ser	Gly	Lys	Phe	Lys
	50					55					60				
Cys	Val	Cys	Ile	Thr	Met	Arg	Val	Pro	Arg	Asn	Pro	Thr	Ile	Gly	Asp
65					70				75					80	
Lys	Phe	Ala	Ser	Arg	His	Gly	Gln	Lys	Gly	Ile	Leu	Ser	Arg	Leu	Trp
			85					90					95		
Pro	Ala	Glu	Asp	Met	Pro	Phe	Thr	Glu	Ser	Gly	Met	Val	Pro	Asp	Ile
			100					105					110		
Leu	Phe	Asn	Pro	His	Gly	Phe	Pro	Ser	Arg	Met	Thr	Ile	Gly	Met	Leu
		115						120				125			
Ile	Glu	Ser	Met	Ala	Gly	Lys	Ser	Ala	Ala	Leu	His	Gly	Leu	Cys	His
	130					135						140			
Asp	Ala	Thr	Pro	Phe	Ile	Phe	Ser	Glu	Glu	Asn	Ser	Ala	Leu	Glu	Tyr
145					150					155				160	
Phe	Gly	Glu	Met	Leu	Lys	Ala	Ala	Gly	Tyr	Asn	Phe	Tyr	Gly	Thr	Glu
			165					170					175		
Arg	Leu	Tyr	Ser	Gly	Ile	Ser	Gly	Leu	Glu	Leu	Glu	Ala	Asp	Ile	Phe
		180					185						190		
Ile	Gly	Val	Val	Tyr	Tyr	Gln	Arg	Leu	Arg	His	Met	Val	Ser	Asp	Lys
		195					200					205			
Phe	Gln	Val	Arg	Thr	Thr	Gly	Ala	Arg	Asp	Arg	Val	Thr	Asn	Gln	Pro
	210					215						220			
Ile	Gly	Gly	Arg	Asn	Val	Gln	Gly	Gly	Ile	Arg	Phe	Gly	Glu	Met	Glu
225				230					235					240	
Arg	Asp	Ala	Leu	Leu	Ala	His	Gly	Thr	Ser	Phe	Leu	Leu	His	Asp	Arg
			245					250					255		
Leu	Phe	Asn	Cys	Ser	Asp	Arg	Ser	Val	Ala	His	Val	Cys	Val	Lys	Cys

	260		265		270
Gly Ser Leu Leu Ser Pro Leu Leu Glu Lys Pro Pro Pro Ser Trp Ser					
	275		280		285
Ala Met Arg Asn Arg Lys Tyr Asn Cys Thr Leu Cys Ser Arg Ser Asp					
	290		295		300
Thr Ile Asp Thr Val Ser Val Pro Tyr Val Phe Arg Tyr Phe Val Ala					
305		310		315	320
Glu Leu Ala Ala Met Asn Ile Lys Val Lys Leu Asp Val Val					
	325		330		

&lt;210&gt; 3895

&lt;211&gt; 1227

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3895

aagactttgc gagtggtagt ctatgaagaa gaggaagagg atggcacccct gaaacagcac  
60  
aaagaagcca agcgcttcga aatcgctagg tctcaacctg aagacacccc tgaaaacaca  
120  
gtgaggaggc aagagcagcc cagcattgag agtacatctc cgatttcaag aactgatgaa  
180  
attagaaaaa acacctacag aacattggat agcctggagc agaccattaa acagctcgaa  
240  
aatacaatca gtgaaatgag tcccaaagcc ctagtgtgata cctcatgttc ttccaacaga  
300  
gattctgttg caagttcatc ccacatagcc caagaggcct ctccccgacc cttgctagtt  
360  
ccggatgaag gtccactgc cctagagccc cctacgtcga taccttcagc ttcacgtaag  
420  
ggctccagcg gggccccaca gacgagcagg atgcctgtcc ccatgagtgc caagaacaga  
480  
cccgaaccc tggacaaacc cggcaagcag tccaaactgc aggatccccg ccaatatcgt  
540  
caggctaata gaagtgctaa gaaatctggt ggggacttta agcctacttc cccctcctta  
600  
cctgtctcta agattccagc cctttctccc agctctggga aaagcagttc tctgccctct  
660  
tctagtgttg acagctctaa cctccctaata ccactgcta ctaaaccatc gattgcttct  
720  
aaccctctca gccccaaaac aggaccacct gctcactctg cctccctcat ccttctgtc  
780  
tctaattggc ctttgaagtt tcagagcctc actcatacag gtaaaggtea ccatctttca  
840  
ttctcaccgc agagtcaaaa tggccgagca cccctcctt tgtcattttc ctctccct  
900  
ccttctctg cctcctcctg ctactgaat caaggtgcc aaggcaccag gaccatccat  
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<210> 3896

<211> 346

<212> PRT

<213> Homo sapiens

<400> 3896

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Pro	Glu	Asp	Thr	Pro	Glu	Asn	Thr	Val	Arg	Arg	Gln	Glu	Gln	Pro	Ser
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Ile	Glu	Ser	Thr	Ser	Pro	Ile	Ser	Arg	Thr	Asp	Glu	Ile	Arg	Lys	Asn
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Thr	Tyr	Arg	Thr	Leu	Asp	Ser	Leu	Glu	Gln	Thr	Ile	Lys	Gln	Leu	Glu
65				70					75					80	
Asn	Thr	Ile	Ser	Glu	Met	Ser	Pro	Lys	Ala	Leu	Val	Asp	Thr	Ser	Cys
			85						90				95		
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			100					105					110		
Ala	Ser	Pro	Arg	Pro	Leu	Leu	Val	Pro	Asp	Glu	Gly	Pro	Thr	Ala	Leu
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Glu	Pro	Pro	Thr	Ser	Ile	Pro	Ser	Ala	Ser	Arg	Lys	Gly	Ser	Ser	Gly
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			165						170					175	
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		180					185						190		
Phe	Lys	Pro	Thr	Ser	Pro	Ser	Leu	Pro	Ala	Ser	Lys	Ile	Pro	Ala	Leu
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Thr	Pro	Ser	Leu	Thr	Ser	Tyr	Lys	Ala	Gln	Asn	Gly	Ser	Ser	Ser	Lys
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 <212> PRT  
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<400> 3898  
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&lt;210&gt; 3900

&lt;211&gt; 249

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3900

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Arg	Pro	Ser	Leu	Gly	Arg	Val	Leu	Pro	Gly	Ser	Ser	Val	Leu	Phe	Leu
			50			55					60				
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65					70					75				80	
Ile	Val	Ser	Val	Ala	Ala	Arg	Met	Leu	Lys	Val	Ala	Arg	Leu	Leu	Glu
				85					90					95	
Val	Pro	Val	Met	Leu	Thr	Glu	Gln	Tyr	Pro	Gln	Gly	Leu	Gly	Pro	Thr

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Leu Arg Ser Val Leu Leu Cys Gly Ile Glu Ala Gln Ala Cys Ile Leu		
145	150	155
Asn Thr Thr Leu Asp Leu Leu Asp Arg Gly Leu Gln Val His Val Val		
165	170	175
Val Asp Ala Cys Ser Ser Arg Ser Gln Val Asp Arg Leu Val Ala Leu		
180	185	190
Ala Arg Met Arg Gln Ser Gly Ala Phe Leu Ser Thr Ser Glu Gly Leu		
195	200	205
Ile Leu Gln Leu Val Gly Asp Ala Val His Pro Gln Phe Lys Glu Ile		
210	215	220
Gln Lys Leu Ile Lys Glu Pro Ala Pro Asp Ser Gly Leu Leu Gly Leu		
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245		

&lt;210&gt; 3901

&lt;211&gt; 1287

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3901

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840

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<210> 3902

<211> 312

<212> PRT

<213> Homo sapiens

<400> 3902

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			20					25					30		
Trp	Ala	Ala	Thr	Thr	Ala	Arg	Asn	Ala	Leu	Val	Val	Ser	Phe	Ala	Ala
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Thr	Gly	Glu	Thr	Ala	Glu	Gly	Leu	Pro	Pro	Val	Arg	Ile	Pro	Pro	Phe
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Asp	Met	Gly	Ala	Gly	Leu	Ala	Val	Val	Pro	Leu	Met	Gly	Leu	Leu	Glu
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			115			120						125			
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Ser	Leu	Val	Ser	Ser	Tyr	Pro	Val	Thr	Gly	Ser	Phe	Gly	Arg	Thr	Ala
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Pro	Leu	Phe	Asp	Thr	Lys	Ile	Phe	Arg	Thr	Leu	Trp	Arg	Val	Lys	Arg
			210			215					220				
Leu	Asp	Leu	Leu	Pro	Leu	Cys	Val	Thr	Phe	Leu	Leu	Cys	Phe	Trp	Glu
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Leu	His	Ser	Ala	Ala	Arg	Pro	Glu	Thr	Lys	Val	Ser	Glu	Gly	Pro	Val
	260		265		270										
Leu	Val	Leu	Gln	Pro	Ala	Ser	Gly	Leu	Ser	Phe	Pro	Val	Leu	Cys	Pro
	275		280		285										
Pro	Leu	Pro	Ala	Val	Gln	Asp	Pro	Lys	Thr	Leu	Ser	Pro	Thr	Leu	Ser
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Ser	Pro	Gln	Gly	Cys	Arg	His	Leu								
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&lt;211&gt; 598

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3903

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&lt;210&gt; 3904

&lt;211&gt; 199

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3904

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Gly	Glu	Ala	Ala	Ala	Phe	Asp	Leu	Arg	Gln	Glu	Ser	Gly	Asn	Asn	Glu
	20						25					30			
Val	Ile	Phe	Met	Ala	Leu	Asp	Leu	Ala	Ser	Leu	Ala	Ser	Val	Arg	Ala
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Phe	Ala	Thr	Ala	Phe	Leu	Ser	Ser	Glu	Pro	Arg	Leu	Asp	Ile	Leu	Ile
	50				55			60							
His	Asn	Ala	Gly	Ile	Ser	Ser	Cys	Gly	Arg	Thr	Arg	Glu	Ala	Phe	Asn
65				70				75				80			
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 Ala Ser Ala Ala His Cys Arg Gly Arg Leu Asp Phe Lys Arg Leu Asp  
 115 120 125  
 Arg Pro Val Val Leu Ala Ala Gly Ala Ala Ala Tyr Ala Asp Thr Lys  
 130 135 140  
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 145 150 155 160  
 Thr Gly Val Thr Cys Tyr Ala Ala His Pro Gly Pro Val Asn Ser Glu  
 165 170 175  
 Leu Phe Leu Arg His Val Pro Gly Trp Leu Arg Pro Leu Leu Arg Pro  
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&lt;210&gt; 3905

&lt;211&gt; 370

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3905

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&lt;211&gt; 123

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3906

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 35 40 45  
 Val Pro Gly Ala Tyr Phe Phe Ser Phe Thr Ala Gly Lys Ala Pro His  
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 Lys Ser Pro Ser Val Met Leu Val Arg Asn Arg Asp Glu Val Gln Ala  
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&lt;210&gt; 3908

&lt;211&gt; 1373

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3908

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Gln His Asp Ala Gln Glu	Phe Met Ala Phe Leu	Leu Asp Gly Leu His
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Glu Asp Leu Asn Arg Ile	Gln Asn Lys Pro Tyr	Thr Glu Thr Val Asp
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Ser Asp Gly Arg Pro Asp	Glu Val Ala Glu Glu	Ala Trp Gln Arg
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Tyr Lys Ser Lys Leu Val	Cys Pro Val Cys Ala	Lys Val Ser Ile Thr
705	710	715
Phe Asp Pro Phe Leu Tyr	Leu Pro Val Pro Leu	Pro Gln Lys Gln Lys
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Val Leu Pro Val Phe Tyr	Phe Ala Arg Glu Pro	His Ser Lys Pro Ile
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Lys Phe Leu Val Ser Val	Ser Lys Glu Asn Ser	Thr Ala Ser Glu Val
755	760	765
Leu Asp Ser Leu Ser Gln	Ser Val His Val Lys	Pro Glu Asn Leu Arg
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Leu Ala Glu Val Ile Lys	Asn Arg Phe His Arg	Val Phe Leu Pro Ser
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&lt;210&gt; 3909

&lt;211&gt; 2704

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3909

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Leu	Ser	Asn	Asp	Phe	Leu	Lys	Thr	Gln	Gln	Glu	Lys	Arg	His	Ser	Trp	145	150	155	160
Phe	Lys	Ala	Ser	Gly	Thr	Ile	Lys	Lys	Phe	Arg	Ala	Gly	Leu	Ser	Ile	165	170	175	
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Phe	Gly	Tyr	Pro	Pro	Ser	Pro	Gln	Val	Ser	Gly	His	Cys	Lys	Asn	Ile	225	230	235	240
Pro	Thr	Leu	Glu	Tyr	Gly	Phe	Leu	Val	Gln	Ile	Met	Lys	Tyr	Ala	Glu	245	250	255	
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Phe Leu Ser Ser Thr Thr Val Leu Phe Arg Pro Ile His Pro Ile Asn		
	740	745
		750
Gly Leu Arg Cys Arg Cys Pro Pro Gly Phe Thr Gly Asp Tyr Cys Glu		
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Thr Glu Ile Asp Leu Cys Tyr Ser Arg Pro Cys Gly Ala Asn Gly Arg		
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Cys Arg Ser Arg Glu Gly Gly Tyr Thr Cys Leu Cys Arg Asp Gly Tyr		
785	790	795
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Thr Gly Glu His Cys Glu Val Ser Ala Arg Ser Gly Arg Cys Thr Pro		
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Gly Val Cys Lys Asn Gly Gly Thr Cys Val Asn Leu Leu Val Gly Gly		
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Phe Lys Cys Asp Cys Pro Ser Gly Asp Phe Glu Lys Pro Tyr Cys Gln		
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		845
Val Thr Thr Arg Ser Phe Pro Ala His Ser Phe Ile Thr Phe Arg Gly		
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Leu Arg Gln Arg Phe His Phe Thr Leu Ala Leu Ser Phe Ala Thr Lys		
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Glu Arg Asp Gly Leu Leu Leu Tyr Asn Gly Arg Phe Asn Glu Lys His		
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		895
Asp Phe Val Ala Leu Glu Val Ile Gln Glu Gln Val Gln Leu Thr Phe		
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Ser Ala Gly Glu Ser Thr Thr Thr Val Ser Pro Phe Val Pro Gly Gly		
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		925
Val Ser Asp Gly Gln Trp His Thr Val Gln Leu Lys Tyr Tyr Asn Lys		
	930	935
		940
Pro Leu Leu Gly Gln Thr Gly Leu Pro Gln Gly Pro Ser Glu Gln Lys		
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		960
Val Ala Val Val Thr Val Asp Gly Cys Asp Thr Gly Val Ala Leu Arg		
	965	970
		975
Phe Gly Ser Val Leu Gly Asn Tyr Ser Cys Ala Ala Gln Gly Thr Gln		
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		990
Gly Gly Ser Lys Lys Ser Leu Asp Leu Thr Gly Pro Leu Leu Leu Gly		
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Gly Val Pro Asp Leu Pro Glu Ser Phe Pro Val Arg Met Arg Gln Phe		
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Val Gly Cys Met Arg Asn Leu Gln Val Asp Ser Arg His Ile Asp Met		
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Asn Gln Trp Asp Ala Phe Ser Cys Glu Cys Pro Leu Gly Phe Gly Gly		
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Lys Ser Cys Ala Gln Glu Met Ala Asn Pro Gln His Phe Leu Gly Ser		
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Ser Leu Val Ala Trp His Gly Leu Ser Leu Pro Ile Ser Gln Pro Trp		
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Glu	Ser	Ile	Asn	Val	Glu	Gln	Gly	Cys	Ser	Leu	Pro	Asp	Pro	Cys	Asp	Glu	Ser	Ile	Asn	Val	Glu	Gln	Gly	Cys	Ser	Leu	Pro	Asp	Pro	Cys	Asp		
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Ser	Asn	Pro	Cys	Pro	Ala	Asn	Ser	Tyr	Cys	Ser	Asn	Asp	Trp	Asp	Ser	Ser	Asn	Pro	Cys	Pro	Ala	Asn	Ser	Tyr	Cys	Ser	Asn	Asp	Trp	Asp	Ser		
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 Trp Gly Val Pro Ala Phe Ile Thr Gly Leu Ala Val Gly Leu Asp Pro  
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Pro Ser Pro Tyr Ala	Asp Gly Arg Leu	Tyr Gln Pro Tyr	Gly Asp Ser
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Tyr Ile Pro Phe Leu	Leu Arg Glu Glu	Ser Ala Leu Asn	Pro Gly Gln
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His Ser Thr Pro Lys	Asp Gly Gly Pro	Gly Pro Gly Lys	Ala Pro Trp
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Ser Leu Gln Glu Gln	Leu Asn Gly Val	Met Pro Ile Ala	Met Ser Ile
2370	2375	2380	
Lys Ala Gly Thr Val	Asp Glu Asp Ser	Ser Gly Ser Glu	Phe Leu Phe
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Phe Asn Phe Leu His			
2405			

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&lt;211&gt; 5237

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3913

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4680

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 4740  
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 4860  
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 4980  
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 5040  
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 5100  
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 5237

&lt;210&gt; 3914

&lt;211&gt; 1435

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3914

Met	Ala	Gln	Cys	Val	Gln	Thr	Val	Gln	Glu	Leu	Ile	Pro	Asp	Ser	Phe
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Val	Pro	Cys	Val	Ala	Ala	Leu	Cys	Ser	Asp	Glu	Ala	Glu	Arg	Leu	Thr
			20					25					30		
Arg	Leu	Asn	His	Leu	Ser	Phe	Ala	Glu	Leu	Leu	Lys	Pro	Phe	Ser	Arg
		35				40						45			
Leu	Thr	Ser	Glu	Val	His	Met	Arg	Asp	Pro	Asn	Asn	Gln	Leu	His	Val
	50				55					60					
Ile	Lys	Asn	Leu	Lys	Ile	Ala	Val	Ser	Asn	Ile	Val	Thr	Gln	Pro	Pro
65				70						75				80	
Gln	Pro	Gly	Ala	Ile	Arg	Lys	Leu	Leu	Asn	Asp	Val	Val	Ser	Gly	Ser
			85					90					95		
Gln	Pro	Ala	Glu	Gly	Leu	Val	Ala	Asn	Val	Ile	Thr	Ala	Gly	Asp	Tyr
		100					105					110			
Asp	Leu	Asn	Ile	Ser	Ala	Thr	Thr	Pro	Trp	Phe	Glu	Ser	Tyr	Arg	Glu
	115					120					125				
Thr	Phe	Leu	Gln	Ser	Met	Pro	Ala	Ser	Asp	His	Glu	Phe	Leu	Asn	His
	130				135					140					
Tyr	Leu	Ala	Cys	Met	Leu	Val	Ala	Ser	Ser	Ser	Glu	Ala	Glu	Pro	Val
145				150					155					160	
Glu	Gln	Phe	Ser	Lys	Leu	Ser	Gln	Glu	Gln	His	Arg	Ile	Gln	His	Asn
			165				170					175			
Ser	Asp	Tyr	Ser	Tyr	Pro	Lys	Trp	Phe	Ile	Pro	Asn	Thr	Leu	Lys	Tyr
	180					185					190				
Tyr	Val	Leu	Leu	His	Asp	Val	Ser	Ala	Gly	Asp	Glu	Gln	Arg	Ala	Glu
	195				200						205				
Ser	Ile	Tyr	Glu	Glu	Met	Lys	Gln	Lys	Tyr	Gly	Thr	Gln	Gly	Cys	Tyr



210	215	220
Leu Leu Lys Ile Asn Ser Arg Thr Ser Asn Arg Ala Ser Asp Glu Gln		
225	230	235
Ile Pro Asp Pro Trp Ser Gln Tyr Leu Gln Lys Asn Ser Ile Gln Asn		240
	245	250
Gln Glu Ser Tyr Glu Asp Gly Pro Cys Thr Ile Thr Ser Asn Lys Asn		255
	260	265
Ser Asp Asn Asn Leu Leu Ser Leu Asp Gly Leu Asp Asn Glu Val Lys		270
	275	280
Asp Gly Leu Pro Asn Asn Phe Arg Ala His Pro Leu Gln Leu Glu Gln		285
	290	295
Ser Ser Asp Pro Ser Asn Ser Ile Asp Gly Pro Asp His Leu Arg Ser		300
305	310	315
Ala Ser Ser Leu His Glu Thr Lys Lys Gly Asn Thr Gly Ile Ile His		320
	325	330
Gly Ala Cys Leu Thr Leu Thr Asp His Asp Arg Ile Arg Gln Phe Ile		335
	340	345
Gln Lys Phe Thr Phe Arg Gly Leu Leu Pro His Ile Glu Lys Thr Ile		350
	355	360
Arg Gln Leu Asn Asp Gln Leu Ile Ser Arg Lys Gly Leu Ser Arg Ser		365
	370	375
Leu Phe Ser Ala Thr Lys Lys Trp Phe Ser Gly Ser Lys Val Pro Glu		380
385	390	395
Lys Ser Ile Asn Asp Leu Lys Asn Thr Ser Gly Leu Leu Tyr Pro Pro		400
	405	410
Glu Ala Pro Glu Leu Gln Ile Arg Lys Met Ala Asp Leu Cys Phe Leu		415
	420	425
Val Gln His Tyr Asp Leu Ala Tyr Ser Cys Tyr His Thr Ala Lys Lys		430
	435	440
Asp Phe Leu Asn Asp Gln Ala Met Leu Tyr Ala Ala Gly Ala Leu Glu		445
	450	455
Met Ala Ala Val Ser Ala Phe Leu Gln Pro Gly Ala Pro Arg Pro Tyr		460
465	470	475
Pro Ala His Tyr Met Asp Thr Ala Ile Gln Thr Tyr Arg Asp Ile Cys		480
	485	490
Lys Asn Met Val Leu Ala Glu Arg Cys Val Leu Leu Ser Ala Glu Leu		495
	500	505
Leu Lys Ser Gln Ser Lys Tyr Ser Glu Ala Ala Ala Leu Leu Ile Arg		510
	515	520
Leu Thr Ser Glu Asp Ser Asp Leu Arg Ser Ala Leu Leu Leu Glu Gln		525
	530	535
Ala Ala His Cys Phe Ile Asn Met Lys Ser Pro Met Val Arg Lys Tyr		540
545	550	555
Ala Phe His Met Ile Leu Ala Gly His Arg Phe Ser Lys Ala Gly Gln		560
	565	570
Lys Lys His Ala Leu Arg Cys Tyr Cys Gln Ala Met Gln Val Tyr Lys		575
	580	585
Gly Lys Gly Trp Ser Leu Ala Glu Asp His Ile Asn Phe Thr Ile Gly		590
	595	600
Arg Gln Ser Tyr Thr Leu Arg Gln Leu Asp Asn Ala Val Ser Ala Phe		605
	610	615
Arg His Ile Leu Ile Asn Glu Ser Lys Gln Ser Ala Ala Gln Gln Gly		620
625	630	635
Ala Phe Leu Arg Glu Tyr Leu Tyr Val Tyr Lys Asn Val Ser Gln Leu		640

3076

1075	1080	1085
Asn Ser Leu Glu Asn Glu Glu Gly Arg Gly Gly Asn Met Leu Val Phe		
1090	1095	1100
Val Asp Val Glu Asn Thr Asn Thr Ser Glu Ala Gly Val Lys Glu Phe		
1105	1110	1115
His Ile Val Gln Val Ser Ser Ser Ser Lys His Trp Lys Leu Gln Lys		
1125	1130	1135
Ser Val Asn Leu Ser Glu Asn Lys Asp Ala Lys Leu Ala Ser Arg Glu		
1140	1145	1150
Lys Gly Lys Phe Cys Phe Lys Ala Ile Arg Cys Glu Lys Glu Glu Ala		
1155	1160	1165
Ala Thr Gln Ser Ser Glu Lys Tyr Thr Phe Ala Asp Ile Ile Phe Gly		
1170	1175	1180
Asn Glu Gln Ile Ile Ser Ser Ala Ser Pro Cys Ala Asp Phe Phe Tyr		
1185	1190	1195
Arg Ser Leu Ser Ser Glu Leu Lys Lys Pro Gln Ala His Leu Pro Val		
1205	1210	1215
His Thr Glu Lys Gln Ser Thr Glu Asp Ala Val Arg Leu Ile Gln Lys		
1220	1225	1230
Cys Ser Glu Val Asp Leu Asn Ile Val Ile Leu Trp Lys Ala Tyr Val		
1235	1240	1245
Val Glu Asp Ser Lys Gln Leu Ile Leu Glu Gly Gln His His Val Ile		
1250	1255	1260
Leu Arg Thr Ile Gly Lys Glu Ala Phe Ser Tyr Pro Gln Lys Gln Glu		
1265	1270	1275
Pro Pro Glu Met Glu Leu Leu Lys Phe Phe Arg Pro Glu Asn Ile Thr		
1285	1290	1295
Val Ser Ser Arg Pro Ser Val Glu Gln Leu Ser Ser Leu Ile Lys Thr		
1300	1305	1310
Ser Leu His Tyr Pro Glu Ser Phe Asn His Pro Phe His Gln Lys Ser		
1315	1320	1325
Leu Cys Leu Val Pro Val Thr Leu Leu Leu Ser Asn Cys Ser Lys Ala		
1330	1335	1340
Asp Val Asp Val Ile Val Asp Leu Arg His Lys Thr Thr Ser Pro Glu		
1345	1350	1355
Ala Leu Glu Ile His Gly Ser Phe Thr Trp Leu Gly Gln Thr Gln Tyr		
1365	1370	1375
Lys Leu Gln Leu Lys Ser Gln Glu Ile His Ser Leu Gln Leu Lys Ala		
1380	1385	1390
Cys Phe Val His Thr Gly Val Tyr Asn Leu Gly Thr Pro Arg Val Phe		
1395	1400	1405
Ala Lys Leu Ser Asp Gln Val Thr Val Phe Glu Thr Ser Gln Gln Asn		
1410	1415	1420
Ser Met Pro Ala Leu Ile Ile Ile Ser Asn Val		
1425	1430	1435

&lt;210&gt; 3915

&lt;211&gt; 1802

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3915

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60

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120  
ctgttggaac agacagcagt ggagctggag aagaggcagg agggcaggag cagcacacag  
180  
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1680

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 aa  
 1802

<210> 3916

<211> 342

<212> PRT

<213> Homo sapiens

<400> 3916

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Ser	Arg	Glu	Leu	Lys	Pro	Val	Gly	Val	Met	Ala	Pro	Ala	Ser	Gly	Pro
		20					25						30		
Ala	Ser	Thr	Asp	Ala	Val	Ser	Ala	Leu	Leu	Glu	Gln	Thr	Ala	Val	Glu
	35					40					45				
Leu	Glu	Lys	Arg	Gln	Glu	Gly	Arg	Ser	Ser	Thr	Gln	Thr	Leu	Glu	Asp
50					55					60					
Ser	Trp	Arg	Tyr	Glu	Glu	Thr	Ser	Glu	Asn	Glu	Ala	Val	Ala	Glu	Glu
65				70				75					80		
Glu	Glu	Glu	Glu	Val	Glu	Glu	Glu	Gly	Glu	Glu	Asp	Val	Phe	Thr	Glu
		85					90					95			
Lys	Ala	Ser	Pro	Asp	Met	Asp	Gly	Tyr	Pro	Ala	Leu	Lys	Val	Asp	Lys
		100					105					110			
Glu	Thr	Asn	Thr	Glu	Thr	Pro	Ala	Pro	Ser	Pro	Thr	Val	Val	Arg	Pro
	115					120					125				
Lys	Asp	Arg	Arg	Val	Gly	Thr	Pro	Ser	Gln	Gly	Pro	Phe	Leu	Arg	Gly
130					135					140					
Ser	Thr	Ile	Ile	Arg	Ser	Lys	Thr	Phe	Ser	Pro	Gly	Pro	Gln	Ser	Gln
145				150				155					160		
Tyr	Val	Cys	Arg	Leu	Asn	Arg	Ser	Asp	Ser	Asp	Ser	Ser	Thr	Leu	Ser
		165					170					175			
Lys	Lys	Pro	Pro	Phe	Val	Arg	Asn	Ser	Leu	Glu	Arg	Arg	Ser	Val	Arg
	180						185					190			
Met	Lys	Arg	Pro	Ser	Pro	Pro	Pro	Gln	Pro	Ser	Ser	Val	Lys	Ser	Leu
	195					200						205			
Arg	Ser	Glu	Arg	Leu	Ile	Arg	Thr	Ser	Leu	Asp	Leu	Glu	Leu	Asp	Leu
210					215					220					
Gln	Ala	Thr	Arg	Thr	Trp	His	Ser	Gln	Leu	Thr	Gln	Glu	Ile	Ser	Val
225				230				235					240		
Leu	Lys	Glu	Leu	Lys	Glu	Gln	Leu	Glu	Gln	Ala	Lys	Ser	His	Gly	Glu
		245						250					255		
Lys	Glu	Leu	Pro	Gln	Trp	Leu	Arg	Glu	Asp	Glu	Arg	Phe	Arg	Leu	Leu
	260						265					270			
Leu	Arg	Met	Leu	Glu	Lys	Arg	Gln	Met	Asp	Arg	Ala	Glu	His	Lys	Gly
	275					280						285			
Glu	Leu	Gln	Thr	Asp	Lys	Met	Met	Arg	Ala	Ala	Ala	Lys	Asp	Val	His
	290				295						300				
Arg	Leu	Arg	Gly	Gln	Ser	Cys	Lys	Glu	Pro	Pro	Glu	Val	Gln	Ser	Phe
305				310				315					320		
Arg	Glu	Lys	Met	Ala	Phe	Phe	Thr	Arg	Pro	Arg	Met	Asn	Ile	Pro	Ala

325  
Leu Ser Ala Asp Asp Val  
340

330

335

<210> 3917  
<211> 597  
<212> DNA  
<213> Homo sapiens

<400> 3917  
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120  
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180  
agcaagaact ctgaaaagaa gatggaaagt gaggaagaca gtaattggga gaaaagtcca  
240  
gacaatgaag attctggaga ctctaaggat atccgcctta ctcttatgga agaagtattg  
300  
cttctgggac taaaagataa agaggggtac acatctttct ggaatgactg catatcatca  
360  
ggcctgctgag ggggcatcct gatagagctg gccatgcggg gtcgaatcta tctggaaccc  
420  
ccgaccatgc gtaagaagcg actactagac agaaaggtag tgctaaagtc agacagccca  
480  
acaggtgatg ttttactgga tgaaactctg aaacacatca aagcaactga acccacagaa  
540  
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597

<210> 3918  
<211> 152  
<212> PRT  
<213> Homo sapiens

<400> 3918  
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Ser Glu Lys Lys Met Glu Ser Glu Glu Asp Ser Asn Trp Glu Lys Ser  
20 25 30  
Pro Asp Asn Glu Asp Ser Gly Asp Ser Lys Asp Ile Arg Leu Thr Leu  
35 40 45  
Met Glu Glu Val Leu Leu Leu Gly Leu Lys Asp Lys Glu Gly Tyr Thr  
50 55 60  
Ser Phe Trp Asn Asp Cys Ile Ser Ser Gly Leu Arg Gly Gly Ile Leu  
65 70 75 80  
Ile Glu Leu Ala Met Arg Gly Arg Ile Tyr Leu Glu Pro Pro Thr Met  
85 90 95  
Arg Lys Lys Arg Leu Leu Asp Arg Lys Val Leu Leu Lys Ser Asp Ser  
100 105 110  
Pro Thr Gly Asp Val Leu Leu Asp Glu Thr Leu Lys His Ile Lys Ala  
115 120 125  
Thr Glu Pro Thr Glu Thr Val Gln Thr Trp Ile Glu Leu Leu Thr Gly

130  
Glu Thr Trp Asn Pro Phe Lys Leu  
145 150

140

<210> 3919  
<211> 1278  
<212> DNA  
<213> Homo sapiens

<400> 3919  
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120  
caggcacagc atccaccag ccccatcaag tcctccagcg ccgactccac tcccagcccc  
180  
accagcagcc tctctagcga agacaagcag cacctggccg tagagctggc cgacaccaag  
240  
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300  
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720  
gcacagaagc agagcatgaa cgaatctgcc caccttggtt gggagctgga gcagctgtcc  
780  
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1080  
ctgcagagtg acatggagac cctgaaggct gacaaagcca ggcagatcaa ggaccttgag  
1140  
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1260  
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1278

&lt;210&gt; 3920

&lt;211&gt; 426

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3920

Xaa Pro Glu Glu Leu Glu Ala Leu Ser Arg Ser Met Val Leu His Leu  
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 20 25 30  
 Leu Thr Gln Glu Arg Asp Tyr Leu Gln Ala Gln His Pro Pro Ser Pro  
 35 40 45  
 Ile Lys Ser Ser Ser Ala Asp Ser Thr Pro Ser Pro Thr Ser Ser Leu  
 50 55 60  
 Ser Ser Glu Asp Lys Gln His Leu Ala Val Glu Leu Ala Asp Thr Lys  
 65 70 75 80  
 Ala Arg Leu Arg Arg Val Arg Gln Glu Leu Glu Asp Lys Thr Glu Gln  
 85 90 95  
 Leu Val Asp Thr Arg His Glu Val Asp Gln Leu Val Leu Glu Leu Gln  
 100 105 110  
 Lys Val Lys Gln Glu Asn Ile Gln Leu Ala Ala Asp Ala Arg Ser Ala  
 115 120 125  
 Arg Ala Tyr Arg Asp Glu Leu Asp Ser Leu Arg Glu Lys Ala Asn Arg  
 130 135 140  
 Val Glu Arg Leu Glu Leu Glu Leu Thr Arg Cys Lys Glu Lys Leu His  
 145 150 155 160  
 Asp Val Asp Phe Tyr Lys Ala Arg Met Glu Glu Leu Arg Glu Asp Asn  
 165 170 175  
 Ile Ile Leu Ile Glu Thr Lys Ala Met Leu Glu Glu Gln Leu Thr Ala  
 180 185 190  
 Ala Arg Ala Arg Gly Asp Lys Val His Glu Leu Glu Lys Glu Asn Leu  
 195 200 205  
 Gln Leu Lys Ser Lys Leu His Asp Leu Glu Leu Asp Arg Asp Thr Asp  
 210 215 220  
 Lys Lys Arg Ile Glu Glu Leu Leu Glu Glu Asn Met Val Leu Glu Ile  
 225 230 235 240  
 Ala Gln Lys Gln Ser Met Asn Glu Ser Ala His Leu Gly Trp Glu Leu  
 245 250 255  
 Glu Gln Leu Ser Lys Asn Ala Asp Leu Ser Asp Ala Ser Arg Lys Ser  
 260 265 270  
 Phe Val Phe Glu Leu Asn Glu Cys Ala Ser Ser Arg Ile Leu Lys Leu  
 275 280 285  
 Glu Lys Glu Asn Gln Ser Leu Gln Ser Thr Ile Gln Gly Leu Arg Asp  
 290 295 300  
 Ala Ser Leu Val Leu Glu Glu Ser Gly Leu Lys Cys Gly Glu Leu Glu  
 305 310 315 320  
 Lys Glu Asn His Gln Leu Ser Lys Lys Ile Glu Lys Leu Gln Thr Gln  
 325 330 335  
 Leu Glu Arg Glu Lys Gln Ser Asn Gln Asp Leu Glu Thr Leu Ser Glu  
 340 345 350  
 Glu Leu Ile Arg Glu Lys Glu Gln Leu Gln Ser Asp Met Glu Thr Leu  
 355 360 365  
 Lys Ala Asp Lys Ala Arg Gln Ile Lys Asp Leu Glu Gln Glu Lys Asp



370	375	380
His Leu Asn Arg Ala Met Trp Ser Leu Arg Glu Arg Ser Gln Val Ser		
385	390	395
Ser Glu Ala Arg Met Lys Asp Val Glu Lys Glu Asn Lys Ala Leu His		400
	405	410
Gln Thr Val Thr Glu Ala Asn Gly Lys Leu		415
	420	425

&lt;210&gt; 3921

&lt;211&gt; 413

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3921

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60  
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413

&lt;210&gt; 3922

&lt;211&gt; 126

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3922

Met Ala Ala Gly Asn Arg Lys Cys Pro Pro Trp Val Leu Lys Asp Pro		
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Arg Gln Pro Gly Pro Val Phe Val Gly Thr Arg Phe Gln Met Pro Leu		15
	20	25
Leu Leu Ala Ser Leu Val Thr Phe Ile His Ala Gly Pro Cys Phe Leu		30
	35	40
Asp Ser Val Gly Pro Ile Pro Ala Pro Arg Gly Asp Gly Cys Cys Arg		45
	50	55
Asp Val Gln Ala Val Glu Gly Ser Arg Glu Trp Ala Trp Arg Ser Ala		60
	65	70
Ser Leu Ala Pro Leu Leu Asp Ala Phe Leu Gln Pro Leu Glu Leu Arg		75
	80	85
Gln Cys Ser Val Arg Met Ile Ile Gly Phe Pro Pro Gln Phe Leu Ala		90
	95	100
His Ser Phe Val Ala Leu Val Thr Ala Phe Cys Asp Asn Ile		105
	110	115
	120	125

&lt;210&gt; 3923

&lt;211&gt; 820

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3923

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 820

&lt;210&gt; 3924

&lt;211&gt; 250

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3924

Met	Gly	Glu	Glu	Leu	Leu	Gly	Ser	Glu	Gly	Ile	His	Ser	Ser	Lys	Glu
1				5					10					15	
Lys	Pro	Leu	Val	Ala	Val	Asn	Thr	Arg	Leu	Ser	Gly	Gly	Gln	Val	Leu
			20					25					30		
Ser	Glu	Tyr	Thr	Gly	Pro	Thr	Ser	Ala	Asp	Leu	Asp	His	Phe	Pro	Ser
		35				40					45				
Val	Ser	Gln	Thr	Lys	Ala	Glu	Gln	Asp	Ser	Asp	Asn	Lys	Ser	Ser	Thr
	50					55					60				
Glu	Ile	Pro	Leu	Glu	Thr	Cys	Cys	Ser	Ser	Glu	Leu	Lys	Gly	Gly	Gly
65					70					75				80	
Ser	Gly	Thr	Ser	Leu	Glu	Arg	Glu	Gln	Phe	Glu	Gly	Leu	Gly	Ser	Thr
			85					90						95	
Pro	Asp	Ala	Lys	Leu	Asp	Lys	Thr	Cys	Ile	Ser	Arg	Ala	Met	Lys	Ile
			100					105					110		
Thr	Thr	Val	Asn	Ser	Val	Leu	Pro	Gln	Asn	Ser	Val	Leu	Gly	Gly	Val

115	120	125
Leu Lys Thr Lys Gln Gln Leu Lys Thr Leu Asn His Phe Asp Leu Thr		
130	135	140
Asn Gly Val Leu Val Glu Ser Leu Ser Glu Glu Pro Leu Pro Ser Leu		
145	150	155
Arg Arg Gly Arg Lys Arg His Cys Lys Thr Lys His Leu Glu Gln Asn		
165	170	175
Gly Ser Leu Lys Lys Leu Arg Gln Thr Ser Gly Glu Val Gly Leu Ala		
180	185	190
Pro Thr Asp Pro Val Leu Arg Glu Met Glu Gln Lys Leu Gln Gln Glu		
195	200	205
Glu Glu Asp Arg Gln Leu Ala Leu Gln Leu Gln Arg Met Phe Asp Asn		
210	215	220
Glu Arg Arg Thr Val Ser Arg Arg Lys Gly Ser Val Asp Gln Tyr Leu		
225	230	235
Leu Arg Ser Ser Asn Met Ala Gly Gly Arg		
245	250	

&lt;210&gt; 3925

&lt;211&gt; 3296

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3925

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 3296

&lt;210&gt; 3926

&lt;211&gt; 683

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3926

Met	Leu	Phe	Ile	Phe	Asn	Phe	Leu	Phe	Ser	Pro	Leu	Pro	Thr	Pro	Ala
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Leu	Ile	Cys	Ile	Leu	Thr	Phe	Gly	Ala	Ile	Phe	Leu	Trp	Leu	Ile	
		20					25					30			
Thr	Arg	Pro	Gln	Pro	Val	Leu	Pro	Leu	Leu	Asp	Leu	Asn	Asn	Gln	Ser
		35					40					45			
Val	Gly	Ile	Glu	Gly	Gly	Ala	Arg	Lys	Gly	Val	Ser	Gln	Lys	Asn	Asn
	50					55				60					
Asp	Leu	Thr	Ser	Cys	Cys	Phe	Ser	Asp	Ala	Lys	Thr	Met	Tyr	Glu	Val
65				70					75					80	
Phe	Gln	Arg	Gly	Leu	Ala	Val	Ser	Asp	Asn	Gly	Pro	Cys	Leu	Gly	Tyr
			85					90					95		
Arg	Lys	Pro	Asn	Gln	Pro	Tyr	Arg	Trp	Leu	Ser	Tyr	Lys	Gln	Val	Ser
		100						105					110		
Asp	Arg	Ala	Glu	Tyr	Leu	Gly	Ser	Cys	Leu	Leu	His	Lys	Gly	Tyr	Lys
		115				120						125			
Ser	Ser	Pro	Asp	Gln	Phe	Val	Gly	Ile	Phe	Ala	Gln	Asn	Arg	Pro	Glu
	130					135				140					
Trp	Ile	Ile	Ser	Glu	Leu	Ala	Cys	Tyr	Thr	Tyr	Ser	Met	Val	Ala	Val
145					150					155				160	
Pro	Leu	Tyr	Asp	Thr	Leu	Gly	Pro	Glu	Ala	Ile	Val	His	Ile	Val	Asn

165 170 175  
 Lys Ala Asp Ile Ala Met Val Ile Cys Asp Thr Pro Gln Lys Ala Leu  
 180 185 190  
 Val Leu Ile Gly Asn Val Glu Lys Gly Phe Thr Pro Ser Leu Lys Val  
 195 200 205  
 Ile Ile Leu Met Asp Pro Phe Asp Asp Asp Leu Lys Gln Arg Gly Glu  
 210 215 220  
 Lys Ser Gly Ile Glu Ile Leu Ser Leu Tyr Asp Ala Glu Asn Leu Asp  
 225 230 235 240  
 Lys Glu His Phe Arg Lys Pro Val Pro Pro Ser Pro Glu Asp Leu Ser  
 245 250 255  
 Val Ile Cys Phe Thr Ser Gly Thr Thr Gly Asp Pro Lys Gly Ala Met  
 260 265 270  
 Ile Thr His Gln Asn Ile Val Ser Asn Ala Ala Ala Phe Leu Lys Cys  
 275 280 285  
 Val Glu His Ala Tyr Glu Pro Thr Pro Asp Asp Val Ala Ile Ser Tyr  
 290 295 300  
 Leu Pro Leu Ala His Met Phe Glu Arg Ile Val Gln Ala Val Val Tyr  
 305 310 315 320  
 Ser Cys Gly Ala Arg Val Gly Phe Phe Gln Gly Asp Ile Arg Leu Leu  
 325 330 335  
 Ala Asp Asp Met Lys Thr Leu Lys Pro Thr Leu Phe Pro Ala Val Pro  
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 Arg Leu Leu Asn Arg Ile Tyr Asp Lys Val Gln Asn Glu Ala Lys Thr  
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 Pro Leu Lys Lys Phe Leu Leu Lys Leu Ala Val Ser Ser Lys Phe Lys  
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 Glu Leu Gln Lys Gly Ile Ile Arg His Asp Ser Phe Trp Asp Lys Leu  
 385 390 395 400  
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 405 410 415  
 Val Thr Gly Ala Ala Pro Ile Ser Thr Pro Val Leu Thr Phe Phe Arg  
 420 425 430  
 Ala Ala Met Gly Cys Trp Val Phe Glu Ala Tyr Gly Gln Thr Glu Cys  
 435 440 445  
 Thr Gly Gly Cys Thr Phe Thr Leu Pro Gly Asp Trp Thr Ser Gly His  
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 Val Gly Val Pro Leu Ala Cys Asn Tyr Val Lys Leu Glu Asp Val Ala  
 465 470 475 480  
 Asp Met Asn Tyr Phe Thr Val Asn Asn Glu Gly Glu Val Cys Ile Lys  
 485 490 495  
 Gly Thr Asn Val Phe Lys Gly Tyr Leu Lys Asp Pro Glu Lys Thr Gln  
 500 505 510  
 Glu Ala Leu Asp Ser Asp Gly Trp Leu His Thr Gly Asp Ile Gly Arg  
 515 520 525  
 Trp Leu Pro Asn Gly Thr Leu Lys Ile Ile Asp Arg Lys Lys Asn Ile  
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 580 585 590  
 Leu Pro Ser Phe Ala Ala Lys Leu Gly Val Lys Gly Ser Phe Glu Glu

595	600	605
Leu Cys Gln Asn Gln Val Val Arg Glu Ala Ile Leu Glu Asp Leu Gln		
610	615	620
Lys Ile Gly Lys Glu Ser Gly Leu Lys Thr Phe Glu Gln Val Lys Ala		
625	630	635
Ile Phe Leu His Pro Glu Pro Phe Ser Ile Glu Asn Gly Leu Leu Thr		
645	650	655
Pro Thr Leu Lys Ala Lys Arg Gly Glu Leu Ser Lys Tyr Phe Arg Thr		
660	665	670
Gln Ile Asp Ser Leu Tyr Glu His Ile Gln Asp		
675	680	

&lt;210&gt; 3927

&lt;211&gt; 3197

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3927

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<210> 3928

<211> 180

<212> PRT

<213> Homo sapiens

<400> 3928

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Thr	Cys	Phe	Ser	Arg	Val	Arg	Pro	Trp	Arg	Arg	Arg	Cys	Ser	Cys	Gly
			20					25					30		
Asp	Ser	Ser	Ser	Arg	Arg	Arg	Arg	Ser	Cys	Cys	Thr	Gly	Ser	Leu	Gly
			35				40					45			
Pro	Met	Pro	Arg	Leu	Pro	Ser	Leu	Trp	Pro	Leu	Ser	Leu	Pro	Leu	Arg
	50					55				60					
Ser	Leu	Ser	Ser	Pro	His	Arg	Val	Gln	Gly	Leu	Gly	Pro	Pro	Arg	Arg
65					70				75					80	
Leu	Lys	Ser	Gln	Leu	Leu	Pro	Arg	Phe	Phe	Trp	Arg	Arg	Gln	Gln	Glu
			85						90					95	
Pro	Leu	Ser	Ser	Phe	Pro	Gly	Arg	Asn	Glu	Gly	Gly	Ser	Glu	Met	Glu
			100					105					110		
Ile	Leu	Gly	Val	Cys	Pro	Val	Ser	Pro	Gly	Ala	Leu	Ser	Tyr	Met	Glu
		115					120					125			
Ser	Pro	Thr	Gly	Phe	Trp	Arg	Pro	Arg	Glu	Ala	Ser	Ser	Leu	Glu	Leu
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Ala	Lys	Gly	Ile	Ser	Lys	Arg	Arg	His	Phe	Leu	Pro	Ala	Pro	Ala	Leu
145					150					155				160	
Cys	Pro	Asn	Pro	Arg	Ser	Ser	Glu	Ala	Phe	Pro	Gly	Ala	Val	Cys	Val
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<210> 3929

<211> 470

<212> DNA

<213> Homo sapiens

&lt;400&gt; 3929

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&lt;210&gt; 3930

&lt;211&gt; 115

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3930

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Pro	Pro	Arg	Cys	Ala	Gly	Arg	Ser	Ala	Pro	Leu	Ser	Gly	Pro	Asp	Ser
			20					25					30		
Gln	Ser	Glu	Asn	Glu	Ala	Ser	Pro	Val	Lys	Arg	Pro	Arg	Leu	Leu	Glu
		35					40					45			
Asn	Thr	Glu	Arg	Ser	Glu	Glu	Thr	Ser	Arg	Ser	Lys	Gln	Lys	Ser	Arg
		50				55					60				
Arg	Arg	Cys	Phe	Gln	Cys	Gln	Thr	Lys	Leu	Glu	Leu	Val	Gln	Gln	Glu
65					70				75					80	
Leu	Gly	Ser	Cys	Arg	Cys	Gly	Tyr	Val	Phe	Cys	Met	Leu	His	Arg	Leu
			85					90						95	
Pro	Glu	Gln	His	Asp	Cys	Thr	Phe	Asp	His	Met	Gly	Val	Ala	Gly	Arg
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&lt;210&gt; 3931

&lt;211&gt; 3568

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3931

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 <213> Homo sapiens

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 165 170 175  
 Tyr Ile Ile Leu Gln Ala Phe Ile Leu Thr Thr Thr Val Phe Phe Gly  
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 Leu Thr Val Tyr Thr Leu Gln Ser Lys Lys Asp Phe Ser Lys Phe Gly  
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 Ala Gly Leu Phe Ala Leu Leu Trp Ile Leu Cys Leu Ser Gly Phe Leu  
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 Lys Phe Phe Phe Tyr Ser Glu Ile Met Glu Leu Val Leu Ala Ala Ala  
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 Gly Ala Leu Leu Phe Cys Gly Phe Ile Ile Tyr Asp Thr His Ser Leu  
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 Met His Lys Leu Ser Pro Glu Glu Tyr Val Leu Ala Ala Ile Ser Leu  
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<210> 3933  
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&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3933

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 4082

&lt;210&gt; 3934

&lt;211&gt; 130

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3934

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Ala	Ala	Gly	Thr	Ser	Ser	Pro	Ile	Arg	Pro	Val	Ser	Ser	Pro	Val	Leu
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Cys	Ser	Ala	Leu	Gln	Pro	Xaa	Leu	Ala	Pro	Ser	Gln	Pro	His	Ser	Thr
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Pro	Thr														
	130														

&lt;210&gt; 3935

&lt;211&gt; 1103

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3935

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&lt;210&gt; 3936

&lt;211&gt; 265

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3936

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      35           40           45
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      50           55           60
Tyr Arg Thr Ile Tyr Arg Thr Ala Tyr Arg Arg Ser Pro Gly Leu Ala
      65           70           75           80
Pro Ala Arg Pro Arg Tyr Ala Cys Cys Pro Gly Trp Lys Arg Thr Ser
      85           90           95
Gly Leu Pro Gly Ala Cys Gly Ala Ala Ile Cys Gln Pro Pro Cys Arg
      100           105           110
Asn Gly Gly Ser Cys Val Gln Pro Gly Arg Cys Arg Cys Pro Ala Gly
      115           120           125
Trp Arg Gly Asp Thr Cys Gln Ser Asp Val Asp Glu Cys Ser Ala Arg
      130           135           140
Arg Gly Gly Cys Pro Gln Arg Cys Val Asn Thr Ala Gly Ser Tyr Trp
      145           150           155           160
Cys Gln Cys Trp Glu Gly His Ser Leu Ser Ala Asp Gly Thr Leu Cys
      165           170           175
Val Pro Lys Gly Gly Pro Pro Arg Val Ala Pro Asn Pro Thr Gly Lys
      180           185           190
Gln Pro Trp Leu Cys Leu Ala Trp Gly Gly Gly Gln Ala Val Asp Ile
      195           200           205
Ala Val Trp Leu Leu Gly Met Val Gly Gly Thr Gly Ile Trp Ala Glu
      210           215           220
Gly Gly Gly Asp Ser Leu Ser Arg Glu Gly Gly Trp Gly Gly Arg Ile
      225           230           235           240
Gly Gly Phe Pro Arg Thr Gly Gly Arg Leu Pro Gly Ala Ser Tyr Gln
      245           250           255
Pro Arg Arg Gln Lys Cys Pro Val Pro
      260           265

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&lt;210&gt; 3937

&lt;211&gt; 744

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3937

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180
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240
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300

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 420  
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 480  
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<210> 3938

<211> 154

<212> PRT

<213> Homo sapiens

<400> 3938

Pro	Pro	Ala	Gly	Ala	Ala	Phe	Ala	Ala	Asn	His	Pro	Val	Leu	Pro	Pro
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Gly	His	Val	Leu	Leu	Ala	Glu	Asn	Ala	Asp	Leu	Ser	Arg	Asn	Ala	Gly
			20					25					30		
Arg	Arg	Gly	Trp	Arg	Gly	Leu	Arg	Ala	Pro	Arg	Tyr	Arg	Asp	Pro	Gly
		35				40						45			
Arg	Ala	Ala	Glu	Ala	Gly	Asn	Ala	Lys	Gly	Asp	Ala	Thr	Ala	Gly	Pro
	50					55				60					
Lys	Glu	Gln	Gly	Gly	Gly	Gly	Gln	Asp	Pro	Ala	Ala	Ile	Ala	Gly	His
65					70					75				80	
Ser	Ala	Gly	Gly	Ser	Asp	His	Ala	Gly	Glu	Arg	Gly	Leu	Xaa	Gly	Arg
			85					90						95	
Thr	Gly	Trp	Leu	Ala	Ala	Lys	Ala	Ala	Pro	Ala	Gly	Gly	His	Arg	Glu
			100					105					110		
Thr	Gly	Leu	Ala	Ser	Val	Gly	Ala	Gly	Pro	Trp	Leu	Gly	Arg	Arg	Asn
		115					120					125			
Pro	Arg	Gln	Pro	Phe	Ser	Phe	Val	Gly	Pro	Ala	Glu	Ser	Pro	Asp	Arg
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<210> 3939

<211> 490

<212> DNA

<213> Homo sapiens

<400> 3939

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 180  
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 360  
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 420  
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 490

<210> 3940

<211> 62

<212> PRT

<213> Homo sapiens

<400> 3940

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Thr	Asp	Arg	Gln	Thr	Gly	Lys	Val	Arg	Trp	Lys	His	Thr	Glu	Asp	Glu
			20					25					30		
Arg	Asp	Arg	Gln	Trp	Glu	Ala	Glu	Leu	Lys	Thr	Val	Lys	Glu	Arg	Ala
			35				40					45			
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<210> 3941

<211> 2077

<212> DNA

<213> Homo sapiens

<400> 3941

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 120  
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 180  
 tcttgggtta ggtgaccctt ctgccttgag gtctgttgga cacctgggca tgggatccag  
 240  
 tagtcttgag ctcaactctt tggccatctc cagctgtctc taggggacgt ggctcaggcc  
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 420  
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 480  
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 540

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720  
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780  
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900  
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960  
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1860  
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1920  
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1980  
actgagtctc taacagtctc gccaccacca cccccaaca cacacacaca cacacacaca  
2040  
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2077

&lt;210&gt; 3942

&lt;211&gt; 89

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3942

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 Gly Trp Ser Pro Gly Pro Ala Gly Pro Gln Gly Thr Gly Ser Pro Pro  
 20 25 30  
 Gln Glu Arg Leu Arg Leu Thr Arg Gly Trp Ser Pro Gln Gly Gly Cys  
 35 40 45  
 Gly Ala Arg Ser Gln Ser Thr Pro Ser Ser Asp Thr Leu Pro Pro Ala  
 50 55 60  
 Leu Leu Gly Ser Pro Ala Ser Val Ser Gly Thr Gly Gly Thr Asp Met  
 65 70 75 80  
 Ser Ser Ala Asn Ala His Ser Ala Leu  
 85

&lt;210&gt; 3943

&lt;211&gt; 1524

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3943

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 120  
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 180  
 gtggggctag cggactacgg agacgggccc gactcctccg acgccgatcc ggacagcggc  
 240  
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 300  
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 360  
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 420  
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 480  
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 540  
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 720  
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 780  
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 aatttgctga acatctttat ctcaaattct ggaattgaaa aggcatttct atttgatgtg  
 900

gtcagtaaaa tttatattgc aactgatagt actccggtgg atatgcaaac ctatgagctc  
 960  
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 1080  
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 1200  
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 1260  
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 1320  
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 1380  
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<210> 3944

<211> 435

<212> PRT

<213> Homo sapiens

<400> 3944

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Arg	Leu	Gly	Pro	Thr	Pro	Gly	Pro	Pro	Pro	Ser	Pro	Gly	Arg	Pro	Ala
			20					25					30		
Val	Gly	Thr	Met	Ser	Gln	Val	Leu	Gly	Lys	Pro	Gln	Pro	Gln	Asp	Glu
			35				40					45			
Asp	Asp	Ala	Glu	Glu	Glu	Glu	Glu	Asp	Glu	Leu	Val	Gly	Leu	Ala	
			50			55				60					
Asp	Tyr	Gly	Asp	Gly	Pro	Asp	Ser	Ser	Asp	Ala	Asp	Pro	Asp	Ser	Gly
					70					75					80
Thr	Glu	Glu	Gly	Val	Leu	Asp	Phe	Ser	Asp	Pro	Phe	Ser	Thr	Glu	Val
				85					90					95	
Lys	Pro	Arg	Ile	Leu	Leu	Met	Gly	Leu	Arg	Arg	Ser	Gly	Lys	Ser	Ser
				100				105					110		
Ile	Gln	Lys	Val	Val	Phe	His	Lys	Met	Ser	Pro	Asn	Glu	Thr	Leu	Phe
			115				120					125			
Leu	Glu	Ser	Thr	Asn	Lys	Ile	Cys	Arg	Glu	Asp	Val	Ser	Asn	Ser	Ser
			130			135					140				
Phe	Val	Asn	Phe	Gln	Ile	Trp	Asp	Phe	Pro	Gly	Gln	Ile	Asp	Phe	Phe
				145		150				155					160
Asp	Pro	Thr	Phe	Asp	Tyr	Glu	Met	Ile	Phe	Arg	Gly	Thr	Gly	Ala	Leu
				165				170						175	
Ile	Phe	Val	Ile	Asp	Ala	Gln	Asp	Asp	Tyr	Met	Glu	Ala	Leu	Thr	Arg
				180				185					190		
Leu	His	Ile	Thr	Val	Ser	Lys	Ala	Tyr	Lys	Val	Asn	Pro	Asp	Met	Asn

195	200	205
Phe Glu Val Phe Ile His Lys Val Asp Gly Leu Ser Asp Asp His Lys		
210	215	220
Ile Glu Thr Gln Arg Asp Ile His Gln Arg Ala Asn Asp Asp Leu Ala		
225	230	235
Asp Ala Gly Leu Glu Lys Ile His Leu Ser Phe Tyr Leu Thr Ser Ile		
245	250	255
Tyr Asp His Ser Ile Phe Glu Ala Phe Ser Lys Val Val Gln Lys Leu		
260	265	270
Ile Pro Gln Leu Pro Thr Leu Glu Asn Leu Leu Asn Ile Phe Ile Ser		
275	280	285
Asn Ser Gly Ile Glu Lys Ala Phe Leu Phe Asp Val Val Ser Lys Ile		
290	295	300
Tyr Ile Ala Thr Asp Ser Thr Pro Val Asp Met Gln Thr Tyr Glu Leu		
305	310	315
Cys Cys Asp Met Ile Asp Val Val Ile Asp Ile Ser Cys Ile Tyr Gly		
325	330	335
Leu Lys Glu Asp Gly Ala Gly Thr Pro Tyr Asp Lys Glu Ser Thr Ala		
340	345	350
Ile Ile Lys Leu Asn Asn Thr Thr Val Leu Tyr Leu Lys Glu Val Thr		
355	360	365
Lys Phe Leu Ala Leu Val Cys Phe Val Arg Glu Glu Ser Phe Glu Arg		
370	375	380
Lys Gly Leu Ile Asp Tyr Asn Phe His Cys Phe Arg Lys Ala Ile His		
385	390	395
Glu Val Phe Glu Val Arg Met Lys Val Val Lys Ser Arg Lys Val Gln		
405	410	415
Asn Arg Leu Gln Lys Lys Lys Arg Ala Thr Pro Asn Gly Thr Pro Arg		
420	425	430
Val Leu Leu		
435		

&lt;210&gt; 3945

&lt;211&gt; 696

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3945

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60

agccgagagt ggatcgctgg gctgggctaa cggcgacgga gagcgcgccc tcgctgactc

120

cgggcgcgcc cagcagtagc accgcccgcg cccgcccctg gacacttgta agtttcgatt

180

tccgatttcc gcggaaccga gtcccgcgcc gcggcagagc cagcacagcc agcgcgccat

240

ggcggaccgc gaggtgtgct gtttcatcac caaatcctg tgcgcccacg ggggcccgcac

300

ggccctggac gcgtgtctcc aggagatcgc gctgtctgag ccgcagctct gtgaggtgct

360

gcaggtggcc gggcccgcac gctttgtggt gttggagacc ggccggcgagg ccgggatcac

420

ccgatcgggt gtggccacca ctgcagcccg ggtctgccgt cgcaagtact gccagagacc

480



ctgcgataac ctgcattctct gcaaactcaa cttgctgggc cggtgcaact attcgagtc  
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 600  
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<210> 3946

<211> 165

<212> PRT

<213> Homo sapiens

<400> 3946

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Gly	Ser	Ser	Gly	Gly	His	His	Arg	Ser	Gly	Asp	Pro	Gly	Leu	Ala	Ala
			20				25						30		
Gly	Leu	Gln	His	His	Lys	Ala	Val	Gly	Pro	Gly	His	Leu	Gln	His	Leu
	35						40					45			
Thr	Glu	Leu	Arg	Leu	Arg	Gln	Arg	Asp	Leu	Leu	Glu	Gln	Arg	Val	Gln
	50					55					60				
Gly	His	Ala	Ala	Pro	Val	Gly	Ala	Gln	Asp	Phe	Gly	Asp	Glu	Ala	Ala
65					70					75				80	
His	Leu	Arg	Val	Arg	His	Gly	Ala	Leu	Ala	Val	Leu	Ala	Leu	Pro	Arg
					85				90					95	
Arg	Gly	Thr	Arg	Phe	Arg	Gly	Asn	Arg	Lys	Ser	Lys	Leu	Thr	Ser	Val
			100				105						110		
Gln	Gly	Arg	Ala	Arg	Ala	Val	Leu	Leu	Gly	Ala	Pro	Gly	Val	Ser	
		115					120					125			
Glu	Gly	Ala	Leu	Ser	Val	Ala	Val	Ser	Pro	Ala	Gln	Arg	Ser	Thr	Leu
		130					135					140			
Gly	Ser	Gln	Val	Lys	Arg	Leu	Asp	Leu	Thr	Asp	Arg	Val	Leu	Val	Ala
145					150				155					160	
Gly	Leu	Gln	Pro	Ala											
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<210> 3947

<211> 400

<212> DNA

<213> Homo sapiens

<400> 3947

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 180  
 gccagcgagc aggtaatcaa agacctaaag ggctcggact acagctgggc ctaccagacc  
 240  
 ccaccctcat caccagcag ctccagctcc cggaagtcca gcatgtgcag tgccccagc  
 300

agcagtagca gtgccaaggg tggcggaagc cccatggcct gggggtgccc aaacatactc  
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<210> 3948  
 <211> 133  
 <212> PRT  
 <213> Homo sapiens

<400> 3948  
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 20 25 30  
 Thr Met Leu Gly Glu Ile Thr His Leu Gln Gly Ile Ile Asp Asp Leu  
 35 40 45  
 Val Val Leu Thr Ala Glu Pro His Lys Leu Pro Pro Ala Ser Glu Gln  
 50 55 60  
 Val Ile Lys Asp Leu Lys Gly Ser Asp Tyr Ser Trp Ser Tyr Gln Thr  
 65 70 75 80  
 Pro Pro Ser Ser Pro Ser Ser Ser Ser Ser Arg Lys Ser Ser Met Cys  
 85 90 95  
 Ser Ala Pro Ser Ser Ser Ser Ser Ala Lys Gly Gly Gly Ser Pro Met  
 100 105 110  
 Ala Trp Gly Cys Pro Asn Ile Leu Thr Gln Phe His Leu Ser Leu Pro  
 115 120 125  
 Gln Pro Gly Ala Ala  
 130

<210> 3949  
 <211> 1462  
 <212> DNA  
 <213> Homo sapiens

<400> 3949  
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 120  
 ccaccatctt tctggctgca agagtcaggg gtcagaatgg ggggcagcca ccactgctga  
 180  
 aaagagttgg gggaggaacc cctgaaagga gagccagaaa tgggggagct ccaaactctt  
 240  
 tgtgtcagct ctgtccaaat ctctaactga cttgtgaact aaaaagaaag gtttctacca  
 300  
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 360  
 gtcacttcac agaaaaatat ataggtgctg ttttgccctg gaagccagac agatcagaat  
 420  
 attgggtaag atagctgggt cagctgtcct tggatggatc ccaaacta tgctcctttc  
 480  
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 540

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 660  
 aaagaagcgc ctgcacgtgt ctgccacaca ggtcattatt tgcctcacag tcaagtattt  
 720  
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 780  
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 840  
 gtactcggct atttcatctg cattgcgaac tattctgggt agctcttctc ttggatattg  
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 960  
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 1462

&lt;210&gt; 3950

&lt;211&gt; 351

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3950

Met	Glu	Ala	Leu	Leu	Gln	Ser	Leu	Val	Ile	Val	Leu	Leu	Gly	Phe	Arg
1				5					10					15	
Ser	Leu	Leu	Ser	Asp	Gln	Leu	Gly	Cys	Glu	Val	Leu	Asn	Leu	Leu	Thr
			20				25					30			
Ala	Gln	Gln	Tyr	Glu	Ile	Phe	Ser	Arg	Ser	Leu	Arg	Lys	Asn	Arg	Glu
		35				40					45				
Leu	Phe	Val	His	Gly	Leu	Pro	Gly	Ser	Gly	Lys	Asn	Ile	Met	Ala	Met
	50				55					60					
Lys	Ile	Met	Glu	Lys	Ile	Arg	Asn	Val	Phe	His	Cys	Glu	Ala	His	Arg
65			70				75						80		
Ile	Leu	Tyr	Val	Cys	Glu	Asn	Gln	Pro	Leu	Arg	Asn	Phe	Ile	Ser	Asp
			85				90						95		
Arg	Asn	Ile	Cys	Arg	Ala	Glu	Thr	Arg	Glu	Thr	Phe	Leu	Arg	Glu	Lys
			100				105					110			
Phe	Glu	His	Ile	Gln	His	Ile	Val	Ile	Asp	Glu	Ala	Gln	Asn	Phe	Arg

115	120	125
Thr Glu Asp Gly Asp Trp Tyr Gly Lys Ala Lys Ser Ile Thr Gln Arg		
130	135	140
Glu Lys Asp Cys Pro Gly Val Leu Trp Ile Phe Leu Asp Tyr Phe Gln		
145	150	155
Thr Ser His Leu Gly His Ser Gly Leu Pro Pro Leu Ser Asp Gln Tyr		
165	170	175
Pro Arg Glu Glu Leu Thr Arg Ile Val Arg Asn Ala Asp Glu Ile Ala		
180	185	190
Glu Tyr Leu Gln Lys Glu Met Gln Leu Ile Ile Glu Asn Pro Pro Ile		
195	200	205
Asn Ile Pro Thr Gly Cys Leu Glu Val Phe Pro Glu Ala Glu Trp Ser		
210	215	220
Gln Gly Val Gln Gly Thr Leu Arg Ile Lys Lys Tyr Leu Thr Val Glu		
225	230	235
Gln Ile Met Thr Cys Val Ala Asp Thr Cys Arg Arg Phe Phe Asp Arg		
245	250	255
Gly Tyr Ser Pro Lys Asp Val Ala Val Leu Val Ser Thr Ala Lys Glu		
260	265	270
Val Glu His Tyr Lys Tyr Glu Leu Lys Ala Met Arg Lys Lys Arg		
275	280	285
Val Val Gln Leu Ser Asp Ala Cys Asp Met Leu Gly Asp His Ile Val		
290	295	300
Leu Asp Ser Val Arg Arg Phe Ser Gly Leu Glu Arg Ser Ile Val Phe		
305	310	315
Gly Ile His Pro Arg Thr Ala Asp Pro Ala Ile Leu Pro Asn Ile Leu		
325	330	335
Ile Cys Leu Ala Ser Arg Ala Lys Gln His Leu Tyr Ile Phe Leu		
340	345	350

&lt;210&gt; 3951

&lt;211&gt; 1012

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3951

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 1012

&lt;210&gt; 3952

&lt;211&gt; 188

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3952

Met	Lys	Thr	Leu	Thr	Arg	Val	Gln	Pro	Val	Phe	His	Phe	Lys	Pro	Thr
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Thr	Val	Val	Thr	Ser	Cys	Gln	Pro	Lys	Asn	Pro	Arg	Glu	Leu	His	Arg
			20					25					30		
Arg	Arg	Lys	Leu	Asp	Pro	Gly	Lys	Met	His	Ala	Lys	Ile	Trp	Leu	Met
		35					40					45			
Lys	Thr	Ser	Leu	Arg	Ser	Gly	Arg	Ala	Ala	Leu	Arg	Glu	Leu	Arg	Ser
	50					55				60					
Arg	Glu	Asn	Phe	Leu	Ser	Lys	Leu	Asn	Arg	Glu	Leu	Ile	Glu	Thr	Ile
65				70					75					80	
Gln	Glu	Met	Glu	Asn	Ser	Thr	Thr	Leu	His	Val	Arg	Ala	Leu	Leu	Gln
			85						90					95	
Gln	Gln	Asp	Thr	Leu	Ala	Thr	Ile	Ile	Asp	Ile	Leu	Glu	Tyr	Ser	Asn
		100						105					110		
Lys	Lys	Arg	Leu	Gln	Gln	Leu	Lys	Ser	Glu	Leu	Gln	Glu	Trp	Glu	Glu
		115					120					125			
Lys	Lys	Lys	Cys	Lys	Met	Ser	Tyr	Leu	Glu	Gln	Gln	Ala	Glu	Gln	Leu
		130					135					140			
Asn	Ala	Lys	Ile	Glu	Lys	Thr	Gln	Glu	Glu	Val	Asn	Phe	Leu	Ser	Thr
145					150					155					160
Tyr	Met	Asp	His	Glu	Tyr	Ser	Ile	Lys	Ser	Val	Gln	Ile	Ser	Thr	Leu
			165					170						175	
Met	Arg	His	Cys	Ser	Arg	Leu	Arg	Thr	Ala	Ser	Arg				
			180					185							

&lt;210&gt; 3953

&lt;211&gt; 2900

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3953

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&lt;210&gt; 3954

&lt;211&gt; 627

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3954

Met Gly Leu Leu Gln Gly Leu Leu Arg Val Arg Lys Leu Leu Leu Val

1

5

10

15

Val Cys Val Pro Leu Leu Leu Leu Pro Leu Pro Val Leu His Pro Ser

3114



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Trp Glu Ile Val Ile Leu Val Gly Gly Gly Tyr Ala Leu Ala Ser Gly
465              470              475              480
Ser Lys Ser Ser Gly Leu Ser Thr Trp Ile Gly Asn Gln Met Leu Ser
      485              490              495
Leu Ser Ser Leu Pro Pro Trp Ala Val Thr Leu Leu Ala Cys Ile Leu
      500              505              510
Val Ser Ile Val Thr Glu Phe Val Ser Asn Pro Ala Thr Ile Thr Ile
      515              520              525
Phe Leu Pro Ile Leu Cys Ser Leu Ser Glu Thr Met His Ile Asn Pro
      530              535              540
Leu Tyr Thr Leu Ile Pro Val Thr Met Cys Ile Ser Phe Ala Val Met
      545              550              555              560
Leu Pro Val Gly Asn Pro Pro Asn Ala Ile Val Phe Ser Tyr Gly His
      565              570              575
Cys Gln Ile Lys Asp Met Val Lys Ala Gly Leu Gly Val Asn Val Ile
      580              585              590
Gly Leu Val Ile Val Met Val Ala Ile Asn Thr Trp Gly Val Ser Leu
      595              600              605
Phe His Leu Asp Thr Tyr Pro Ala Trp Ala Arg Val Ser Asn Ile Thr
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Asp Gln Ala
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<210> 3955
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<212> DNA
<213> Homo sapiens

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<210> 3956
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<212> PRT
<213> Homo sapiens

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&lt;400&gt; 3956

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 20 25 30  
 Ser Thr Met Thr Tyr Leu Asn Lys Gly Gln Phe Tyr Pro Ile Thr Leu  
 35 40 45  
 Lys Glu Val Ser Ser Ser Glu Asn Pro Ser Ser His Ser Lys Val Arg  
 50 55 60  
 Ser Val Ile Met Val Val Phe Ala Glu Asp Lys Ser Arg Glu Asp Gln  
 65 70 75 80  
 Leu Arg His Trp Lys Tyr Trp His Ser Arg Gln His Thr Ala Lys Gln  
 85 90 95  
 Arg Cys Ile Asp Ile Ala Asp Tyr Lys Glu Ser Phe Asn Thr Ile Ser  
 100 105 110  
 Asn Ile Glu Glu Ile Ala Tyr Asn Ala Ile Ser Phe Thr Trp Asp Ile  
 115 120 125  
 Asn Asp Glu Ala Lys Val Phe Ile Ser Val Asn Cys Leu Ser Thr Asp  
 130 135 140  
 Phe Ser Ser Gln Lys Gly Val Lys Gly Leu Pro Leu Asn Ile Gln Val  
 145 150 155 160  
 Asp Thr Tyr Ser Tyr Asn Asn Arg Ser Asn Lys Pro Val His  
 165 170

&lt;210&gt; 3957

&lt;211&gt; 3891

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3957

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gggtggccac agccccacgt ggtgtgccct ggaggcttag gttggtctga ggttggcacc  
3660  
tcaatctaca ccagagccca gggagtccca gaggcaagtt tcacagaatt gtcaaatgat  
3720  
cccatttctc tgagtctgtt tttttttttt tttttttttg tttttttttt ggcagagata  
3780  
atcgtgtctt aaaagttgtt tttaaataac aataaaacaa gccagaatgt caaaaaaaaa  
3840  
aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa a  
3891

&lt;210&gt; 3958

&lt;211&gt; 440

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3958

```

Xaa Cys Arg Glu Ala Asn Asp Ala Leu Asn Ala Tyr Val Cys Lys Gly
 1           5           10           15
Leu Pro Gln His Glu Glu Ile Cys Leu Gly Leu Phe Thr Leu Ile Leu
          20           25           30
Thr Glu Pro Ala Gln Ala Gln Lys Cys Tyr Arg Asp Leu Ala Leu Val
          35           40           45
Ser Arg Asp Gly Met Asn Ile Val Leu Asn Lys Ile Asn Gln Ile Leu
          50           55           60
Met Glu Lys Tyr Leu Lys Leu Gln Asp Thr Cys Arg Thr Gln Leu Val
          65           70           75           80
Trp Leu Val Arg Glu Leu Val Lys Ser Gly Val Leu Gly Ala Asp Gly
          85           90           95
Val Cys Met Thr Phe Met Lys Gln Ile Ala Gly Gly Asp Val Thr Ala
          100          105          110
Lys Asn Ile Trp Leu Ala Glu Ser Val Leu Asp Ile Leu Thr Glu Gln
          115          120          125
Arg Glu Trp Val Leu Lys Ser Ser Ile Leu Ile Ala Met Ala Val Tyr
          130          135          140
Thr Tyr Leu Arg Leu Ile Val Asp His His Gly Thr Ala Gln Leu Gln
          145          150          155          160
Ala Leu Arg Gln Lys Glu Val Asp Phe Cys Ile Ser Leu Leu Arg Glu
          165          170          175
Arg Phe Met Glu Cys Leu Met Ile Gly Arg Asp Leu Val Arg Leu Leu
          180          185          190
Gln Asn Val Ala Arg Ile Pro Glu Phe Glu Leu Leu Trp Lys Asp Ile
          195          200          205
Ile His Asn Pro Gln Ala Leu Ser Pro Gln Phe Thr Gly Ile Leu Gln
          210          215          220
Leu Leu Gln Ser Arg Thr Ser Arg Lys Phe Leu Ala Cys Arg Leu Thr
          225          230          235          240
Pro Asp Met Glu Thr Lys Leu Leu Phe Met Thr Ser Arg Val Arg Phe
          245          250          255
Gly Gln Gln Lys Arg Tyr Gln Asp Trp Phe Gln Arg Gln Tyr Leu Ser
          260          265          270
Thr Pro Asp Ser Gln Ser Leu Arg Cys Asp Leu Ile Arg Tyr Ile Cys
          275          280          285
Gly Val Val His Pro Ser Asn Glu Val Leu Ser Ser Asp Ile Leu Pro
          290          295          300
Arg Trp Ala Ile Ile Gly Trp Leu Leu Thr Thr Cys Thr Ser Asn Val
          305          310          315          320
Ala Ala Ser Asn Ala Lys Leu Ala Leu Phe Tyr Asp Trp Leu Phe Phe
          325          330          335
Ser Pro Asp Lys Asp Ser Ile Met Asn Ile Glu Pro Ala Ile Leu Val
          340          345          350
Met His His Ser Met Lys Pro His Pro Ala Ile Thr Ala Thr Leu Leu
          355          360          365
Asp Phe Met Cys Arg Ile Ile Pro Asn Phe Tyr Pro Pro Leu Glu Gly
          370          375          380
His Val Arg Gln Gly Val Phe Ser Ser Leu Asn His Ile Val Glu Lys

```

3120

50		55		60	
Ser Ser Arg Trp Ala Arg Cys Arg Arg Ser Phe Arg Leu Lys Pro Leu					
65		70		75	80
Lys Pro Leu Arg Thr Ala Cys His His Gln Leu Ser Phe Leu					
	85		90		

&lt;210&gt; 3961

&lt;211&gt; 2505

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3961

```

nngcggaggc ggcgttgccg ggctctccgg aaggagacgt ggcggcggtt gggccgggtga
60
taccggggcg ctttatagtc ccgcgcctc ctctccacc tctctctct cctctctcc
120
tcctggggca gaggaggttg tggcgggtggc tggagaaagc ggcggcggtg gatggaggaa
180
ggaggcggtg gcgtacggag tctgggtcccg ggcggggccgg tgttactggt cctctgcggc
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300
cgagtcaact ggcccggcac cgagttctct ctgccacaa ctggagtttt atataaagaa
360
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420
gtgacaagtg gggatgagga agaagaaaag gattataaag gccctaatac aagagagctt
480
ttggagccac tatttaacaa aagcagttgt tctacagaa ttgagtctta ttggacttac
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600
ataaatatc acgagtacta ccttgggaat atgttggcca agaacttct atttgaaaaa
660
gaacgagaag cagaagaaaa ggaaaaatca aatgagattc ccactaaaaa tatcgaaggc
720
cagatgacac catactatcc tgtgggaatg ggaaatggta caccttgtag ttgaaacag
780
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900
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960
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1020
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1080
tttccagcga tccacaagtc gattgctatt ggctctcagc cagtgtcac tgttgggaca
1140
accacatat ccaaattgac agatgaccaa ctcataaaag agtttcttag tggttcttac
1200
tgctttcgtg ggggtgtcgg ttggtggaaa tatgaattct gctatggcaa acatgtacat
1260

```

caataccatg aggacaagga tagtgggaaa acctctgtgg ttgtcgggac atggaaccaa  
 1320  
 gaagagcata ttgaatgggc taagaagaat actgctagag cttatcatct tcaagacgat  
 1380  
 ggtaccaga cagtcaggat ggtgtcacat ttttatggaa atggagatat ttgtgatata  
 1440  
 actgacaaac caagacaggt gactgtaaaa cttaaagtga aagaatcaga ttcacctcat  
 1500  
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 1560  
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 ggcagacatt tgtctcgctt ttttccattt ttgttgtgtc ttataaactg actgtttttc  
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 1920  
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 1980  
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 2400  
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 2505

&lt;210&gt; 3962

&lt;211&gt; 306

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3962

Thr	Lys	Asn	Ile	Glu	Gly	Gln	Met	Thr	Pro	Tyr	Tyr	Pro	Val	Gly	Met
1				5				10						15	
Gly	Asn	Gly	Thr	Pro	Cys	Ser	Leu	Lys	Gln	Asn	Arg	Pro	Arg	Ser	Ser
			20					25					30		
Thr	Val	Met	Tyr	Ile	Cys	His	Pro	Glu	Ser	Lys	His	Glu	Ile	Leu	Ser



35 40 45  
 Val Ala Glu Val Thr Thr Cys Glu Tyr Glu Val Val Ile Leu Thr Pro  
 50 55 60  
 Leu Leu Cys Ser His Pro Lys Tyr Arg Phe Arg Ala Ser Pro Val Asn  
 65 70 75 80  
 Asp Ile Phe Cys Gln Ser Leu Pro Gly Ser Pro Phe Lys Pro Leu Thr  
 85 90 95  
 Leu Arg Gln Leu Glu Gln Gln Glu Glu Ile Leu Arg Val Pro Phe Arg  
 100 105 110  
 Arg Asn Lys Glu Glu Asp Leu Gln Ser Thr Lys Glu Glu Arg Phe Pro  
 115 120 125  
 Ala Ile His Lys Ser Ile Ala Ile Gly Ser Gln Pro Val Leu Thr Val  
 130 135 140  
 Gly Thr Thr His Ile Ser Lys Leu Thr Asp Asp Gln Leu Ile Lys Glu  
 145 150 155 160  
 Phe Leu Ser Gly Ser Tyr Cys Phe Arg Gly Gly Val Gly Trp Trp Lys  
 165 170 175  
 Tyr Glu Phe Cys Tyr Gly Lys His Val His Gln Tyr His Glu Asp Lys  
 180 185 190  
 Asp Ser Gly Lys Thr Ser Val Val Gly Thr Trp Asn Gln Glu Glu  
 195 200 205  
 His Ile Glu Trp Ala Lys Lys Asn Thr Ala Arg Ala Tyr His Leu Gln  
 210 215 220  
 Asp Asp Gly Thr Gln Thr Val Arg Met Val Ser His Phe Tyr Gly Asn  
 225 230 235 240  
 Gly Asp Ile Cys Asp Ile Thr Asp Lys Pro Arg Gln Val Thr Val Lys  
 245 250 255  
 Leu Lys Cys Lys Glu Ser Asp Ser Pro His Ala Val Thr Val Tyr Met  
 260 265 270  
 Leu Glu Pro His Ser Cys Gln Tyr Ile Leu Gly Val Glu Ser Pro Val  
 275 280 285  
 Ile Cys Lys Ile Leu Asp Thr Ala Asp Glu Asn Gly Leu Leu Ser Leu  
 290 295 300  
 Pro Asn  
 305

&lt;210&gt; 3963

&lt;211&gt; 1513

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3963

cttaagggtgt attaatccgt cactataccc agataaacag agatggccat ggcattcttt  
 60  
 ctactctttt attttacaaa gggaatgatg aaagggtggaa acaaacaaga agaagcgtgg  
 120  
 ataatccat ttgttaaaca gttttcaaac atcagttttt cgagagactc accagaggaa  
 180  
 aatgtacaaa gcaataagat ggacctttct ggaggaatgt tacaagacaa acgaatggag  
 240  
 atagataaac atagcctaaa tatttggtgat tacaatcgaa cggtcgggaa aggcctgtg  
 300  
 tctcgccctc agatttccaa agagtcttcc atggagcgca atccttattt tgataagaat  
 360

ggcaatccca gtatgtttgg tgttgaaac acagcagcac aaccccgagg catgcagcag  
 420  
 cctccagcac aacctcttag ttcattctcag cctaattctcc gtgctcaagt gcctctccca  
 480  
 ttactctccc ctccaggttcc agtttcattg ctgaagtatg caccaaaca cgggtggcctg  
 540  
 aatccactct ttggccctca acaggtagcc atgctgaacc agctatccca gctaaaccag  
 600  
 ctttctcaga tctcccagtt acagcgattg ttagcgcagc agcaaagggc gcagagtcag  
 660  
 agaagcgtgc cttctgggaa cgggccgcag caagaccagc agggctcgacc tcttagtgtg  
 720  
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 780  
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 840  
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 900  
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 960  
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 1020  
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 1080  
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 1140  
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 1200  
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 1260  
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 1320  
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 cttaacacag ttaagaatg gctcatgtag taaccagcta ctctgggcga ctgagcccag  
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 1500  
 accctgtctc ttt  
 1513

&lt;210&gt; 3964

&lt;211&gt; 436

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3964

Met	Ala	Met	Ala	Ser	Phe	Leu	Leu	Phe	Tyr	Phe	Thr	Lys	Gly	Met	Met
1				5				10					15		
Lys	Gly	Gly	Asn	Lys	Gln	Glu	Glu	Ala	Trp	Ile	Asn	Pro	Phe	Val	Lys
			20					25					30		
Gln	Phe	Ser	Asn	Ile	Ser	Phe	Ser	Arg	Asp	Ser	Pro	Glu	Glu	Asn	Val
		35					40					45			
Gln	Ser	Asn	Lys	Met	Asp	Leu	Ser	Gly	Gly	Met	Leu	Gln	Asp	Lys	Arg

50	55	60
Met Glu Ile Asp Lys His Ser Leu Asn Ile Gly Asp Tyr Asn Arg Thr		
65	70	75
Val Gly Lys Gly Pro Gly Ser Arg Pro Gln Ile Ser Lys Glu Ser Ser		80
	85	90
Met Glu Arg Asn Pro Tyr Phe Asp Lys Asn Gly Asn Pro Ser Met Phe		95
	100	105
Gly Val Gly Asn Thr Ala Ala Gln Pro Arg Gly Met Gln Gln Pro Pro		110
	115	120
Ala Gln Pro Leu Ser Ser Ser Gln Pro Asn Leu Arg Ala Gln Val Pro		125
	130	135
Pro Pro Leu Leu Ser Pro Gln Val Pro Val Ser Leu Leu Lys Tyr Ala		140
145	150	155
Pro Asn Asn Gly Gly Leu Asn Pro Leu Phe Gly Pro Gln Gln Val Ala		160
	165	170
Met Leu Asn Gln Leu Ser Gln Leu Asn Gln Leu Ser Gln Ile Ser Gln		175
	180	185
Leu Gln Arg Leu Leu Ala Gln Gln Gln Arg Ala Gln Ser Gln Arg Ser		190
	195	200
Val Pro Ser Gly Asn Arg Pro Gln Gln Asp Gln Gln Gly Arg Pro Leu		205
	210	215
Ser Val Gln Gln Gln Met Met Gln Gln Ser Arg Gln Leu Asp Pro Asn		220
225	230	235
Leu Leu Val Lys Gln Gln Thr Pro Pro Ser Gln Gln Gln Pro Leu His		240
	245	250
Gln Pro Ala Met Lys Ser Phe Leu Asp Asn Val Met Pro His Thr Thr		255
	260	265
Pro Glu Leu Gln Lys Gly Pro Ser Pro Ile Asn Ala Phe Ser Asn Phe		270
	275	280
Pro Ile Gly Leu Asn Ser Asn Leu Asn Val Asn Met Asp Met Asn Ser		285
	290	295
Ile Lys Glu Pro Gln Ser Arg Leu Arg Lys Trp Thr Thr Val Asp Ser		300
305	310	315
Ile Ser Val Asn Thr Ser Leu Asp Gln Asn Ser Ser Lys His Gly Ala		320
	325	330
Ile Ser Ser Gly Phe Arg Leu Glu Glu Ser Pro Phe Val Pro Tyr Asp		335
	340	345
Phe Met Asn Ser Ser Thr Ser Pro Ala Ser Pro Pro Gly Ser Ile Gly		350
	355	360
Asp Gly Trp Pro Arg Ala Lys Ser Pro Asn Gly Ser Ser Ser Val Asn		365
	370	375
Trp Pro Pro Glu Phe Arg Pro Gly Glu Pro Trp Lys Gly Tyr Pro Asn		380
385	390	395
Ile Asp Pro Glu Thr Asp Pro Tyr Val Thr Pro Gly Ser Val Ile Asn		400
	405	410
Asn Leu Pro Ile Asn Thr Val Arg Glu Val Asp His Leu Arg Asp Arg		415
	420	425
Asn Ser Gly Thr		430
435		

&lt;210&gt; 3965

&lt;211&gt; 2850

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3965

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gcgaggggtg ttgacgccag gaaggttcca tcttggttaa gggcaggagt cccttacgga  
120  
cttgctctgag gaaagacagg aaagcgccag catctccacc tccccggaa gcctcccttt  
180  
gccaggcaga aagggtttcc catggggccg ccctgggcgc cgcgccgggc ccacgtaccc  
240  
ggggaggccg ggccccggag gacgaggga agcaggccgg gcgccgtgag ctctcgggac  
300  
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360  
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420  
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480  
gtggaaggag aagtggaggc gtggagcccg gagggccagg atcccagcg tgagagctct  
540  
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600  
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660  
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720  
tggtcaagg acaactctgac ccgaagactg cccactctt gccagactg tggccgaac  
780  
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1560

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 1680  
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 1980  
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 2100  
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 2280  
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 2400  
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 2520  
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 2700  
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 2760  
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 2820  
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 2850

&lt;210&gt; 3966

&lt;211&gt; 782

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3966

Met Gly Pro Pro Leu Ala Pro Arg Pro Ala His Val Pro Gly Glu Ala

1

5

10

15

Gly Pro Arg Arg Thr Arg Glu Ser Arg Pro Gly Ala Val Ser Phe Ala

20								25					30				
Asp	Val	Ala	Val	Tyr	Phe	Ser	Pro	Glu	Glu	Trp	Glu	Cys	Leu	Arg	Pro		
		35					40					45					
Ala	Gln	Arg	Ala	Leu	Tyr	Arg	Asp	Val	Met	Arg	Glu	Thr	Phe	Gly	His		
		50			55						60						
Leu	Gly	Ala	Leu	Gly	Glu	Ala	Gly	Pro	Ser	Gly	Arg	Asp	Pro	Gln	Ser		
65					70				75		80						
Val	Gly	Phe	Ser	Val	Pro	Lys	Pro	Ala	Phe	Ile	Ser	Trp	Val	Glu	Gly		
				85				90				95					
Glu	Val	Glu	Ala	Trp	Ser	Pro	Glu	Ala	Gln	Asp	Pro	Asp	Gly	Glu	Ser		
		100						105				110					
Ser	Ala	Ala	Phe	Ser	Arg	Gly	Gln	Gly	Gln	Glu	Ala	Gly	Ser	Arg	Asp		
		115				120						125					
Gly	Asn	Glu	Glu	Lys	Glu	Arg	Leu	Lys	Lys	Cys	Pro	Lys	Gln	Lys	Glu		
		130				135						140					
Val	Ala	His	Glu	Val	Ala	Val	Lys	Glu	Trp	Trp	Pro	Ser	Val	Ala	Cys		
145					150				155		160						
Pro	Glu	Phe	Cys	Asn	Pro	Arg	Gln	Ser	Pro	Met	Asn	Pro	Trp	Leu	Lys		
				165				170				175					
Asp	Thr	Leu	Thr	Arg	Arg	Leu	Pro	His	Ser	Cys	Pro	Asp	Cys	Gly	Arg		
		180						185				190					
Asn	Phe	Ser	Tyr	Pro	Ser	Leu	Leu	Ala	Ser	His	Gln	Arg	Val	His	Ser		
		195				200						205					
Gly	Glu	Arg	Pro	Phe	Ser	Cys	Gly	Gln	Cys	Gln	Ala	Arg	Phe	Ser	Gln		
		210				215						220					
Arg	Arg	Tyr	Leu	Leu	Gln	His	Gln	Phe	Ile	His	Thr	Gly	Glu	Lys	Pro		
225					230				235		240						
Tyr	Pro	Cys	Pro	Asp	Cys	Gly	Arg	Arg	Phe	Arg	Gln	Arg	Gly	Ser	Leu		
				245				250				255					
Ala	Ile	His	Arg	Arg	Ala	His	Thr	Gly	Glu	Lys	Pro	Tyr	Ala	Cys	Ser		
		260						265				270					
Asp	Cys	Lys	Ser	Arg	Phe	Thr	Tyr	Pro	Tyr	Leu	Leu	Ala	Ile	His	Gln		
		275				280						285					
Arg	Lys	His	Thr	Gly	Glu	Lys	Pro	Tyr	Ser	Cys	Pro	Asp	Cys	Ser	Leu		
		290				295				300							
Arg	Phe	Ala	Tyr	Thr	Ser	Leu	Leu	Ala	Ile	His	Arg	Arg	Ile	His	Thr		
305					310				315		320						
Gly	Glu	Lys	Pro	Tyr	Pro	Cys	Pro	Asp	Cys	Gly	Arg	Arg	Phe	Thr	Tyr		
				325				330				335					
Ser	Ser	Leu	Leu	Leu	Ser	His	Arg	Arg	Ile	His	Ser	Asp	Ser	Arg	Pro		
		340						345				350					
Phe	Pro	Cys	Val	Glu	Cys	Gly	Lys	Gly	Phe	Lys	Arg	Lys	Thr	Ala	Leu		
		355				360						365					
Glu	Ala	His	Arg	Trp	Ile	His	Arg	Ser	Cys	Ser	Glu	Arg	Arg	Ala	Trp		
		370				375						380					
Gln	Gln	Ala	Val	Val	Gly	Arg	Ser	Glu	Pro	Ile	Pro	Val	Leu	Gly	Gly		
385					390				395		400						
Lys	Asp	Pro	Pro	Val	His	Phe	Arg	His	Phe	Pro	Asp	Ile	Phe	Gln	Glu		
				405				410				415					
Phe	Cys	Gln	Gln														

450		455		460
Gly Pro Tyr Ile Phe Leu Glu Gly Lys Lys Pro Leu Leu Tyr Phe Pro				
465		470		475
Asp Thr Pro Pro Pro Pro Leu Glu Lys Ala Ala Glu Ala Ala Leu Phe				
	485		490	495
Lys Gly Lys Trp Asp Asp Glu Ala Arg Glu Met Ala Pro Pro Ala				
	500		505	510
Pro Leu Leu Ala Pro Arg Pro Gly Glu Thr Arg Pro Gly Cys Arg Lys				
	515		520	525
Pro Gly Thr Val Ser Phe Ala Asp Val Ala Val Tyr Phe Ser Pro Glu				
	530		535	540
Glu Trp Gly Cys Leu Arg Pro Ala Gln Arg Ala Leu Tyr Arg Asp Val				
545		550		555
Met Gln Glu Thr Tyr Gly His Leu Gly Ala Leu Gly Phe Pro Gly Pro				
	565		570	575
Lys Pro Ala Leu Ile Ser Trp Met Glu Gln Glu Ser Glu Ala Trp Ser				
	580		585	590
Pro Ala Ala Gln Asp Pro Glu Lys Gly Glu Arg Leu Gly Gly Ala Arg				
	595		600	605
Arg Gly Asp Val Pro Asn Arg Lys Glu Glu Glu Pro Glu Glu Val Pro				
	610		615	620
Arg Ala Lys Gly Pro Arg Lys Ala Pro Val Lys Glu Ser Pro Glu Val				
625		630		635
Leu Val Glu Arg Asn Pro Asp Pro Ala Ile Ser Val Ala Pro Ala Arg				
	645		650	655
Ala Gln Pro Pro Lys Asn Ala Ala Trp Asp Pro Thr Thr Gly Ala Gln				
	660		665	670
Pro Pro Ala Pro Ile Pro Ser Met Asp Ala Gln Ala Gly Gln Arg Arg				
	675		680	685
His Val Cys Thr Asp Cys Gly Arg Arg Phe Thr Tyr Pro Ser Leu Leu				
	690		695	700
Val Ser His Arg Arg Met His Ser Gly Glu Arg Pro Phe Pro Cys Pro				
705		710		715
Glu Cys Gly Met Arg Phe Lys Arg Lys Phe Ala Val Glu Ala His Gln				
	725		730	735
Trp Ile His Arg Ser Cys Ser Gly Gly Arg Arg Gly Arg Arg Pro Gly				
	740		745	750
Ile Arg Ala Val Pro Arg Ala Pro Val Arg Gly Asp Arg Asp Pro Pro				
	755		760	765
Val Leu Phe Arg His Tyr Pro Asp Ile Phe Glu Glu Cys Gly				
	770		775	780

&lt;210&gt; 3967

&lt;211&gt; 892

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3967

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 60  
 atcctgcccc gtggccgcgc ccgtctcgta ggggacaccg tgggtgttaa ggatggccag  
 120  
 tactggatcc gaggccggac ctcaaggac atcatcaaga ctggaggcta caaggtcagc  
 180

gccctggagg tggagtggca cctgctggcc caccacagca tcacagatgt ggctgtgatt  
 240  
 ggagttccgg atatgacatg gggccagcgg gtcactgctg tggtgaccct ccgagaagga  
 300  
 cactcactgt cccacaggga gctcaaagag tgggcccagaa atgtcctggc cccgtacgcy  
 360  
 gtgccctcgg agctgggtgct ggtggaggag atcccgcgga accagatggg caagattgac  
 420  
 aagaaggcgc tcacagggca cttccacccc tcacgacccg gcagactggg actgcgggctc  
 480  
 tgggtgggggag cagcagacgt ccccttcaca ccgagaacca cgggggccccg tccaagacct  
 540  
 ggctccctt aaacctgaac cccccaaatc aggtcacgta gaatcaagaa ctgtttggga  
 600  
 tgaatcacc atgtgggggc cccagcctcg ggccagttgt tgcagctcaa ggagaccgtc  
 660  
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 720  
 ccctggcccc acgtgctgag gcacctccc cccacagtg cctgcagtt gccaggctct  
 780  
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 840  
 aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aa  
 892

&lt;210&gt; 3968

&lt;211&gt; 151

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3968

Xaa	Pro	Ala	Arg	Pro	Arg	Arg	Ala	Arg	Gly	Gly	Gly	Arg	Gly	Arg	Val
1				5					10					15	
Val	Ala	Arg	Gln	Ile	Leu	Pro	Arg	Gly	Arg	Gly	Arg	Leu	Val	Gly	Asp
			20						25				30		
Thr	Val	Val	Phe	Lys	Asp	Gly	Gln	Tyr	Trp	Ile	Arg	Gly	Arg	Thr	Ser
			35					40				45			
Val	Asp	Ile	Ile	Lys	Thr	Gly	Gly	Tyr	Lys	Val	Ser	Ala	Leu	Glu	Val
			50				55				60				
Glu	Trp	His	Leu	Leu	Ala	His	Pro	Ser	Ile	Thr	Asp	Val	Ala	Val	Ile
			65			70				75				80	
Gly	Val	Pro	Asp	Met	Thr	Trp	Gly	Gln	Arg	Val	Thr	Ala	Val	Val	Thr
			85					90				95			
Leu	Arg	Glu	Gly	His	Ser	Leu	Ser	His	Arg	Glu	Leu	Lys	Glu	Trp	Ala
			100					105				110			
Arg	Asn	Val	Leu	Ala	Pro	Tyr	Ala	Val	Pro	Ser	Glu	Leu	Val	Leu	Val
			115				120					125			
Glu	Glu	Ile	Pro	Arg	Asn	Gln	Met	Gly	Lys	Ile	Asp	Lys	Lys	Ala	Leu
			130			135					140				
Ile	Arg	His	Phe	His	Pro	Ser									
			145			150									

&lt;210&gt; 3969

&lt;211&gt; 915



&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3969

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120
ggattgcaac tcggggaggg atggagcacg cgtcgtcgcc tgggaaacgg gtcgacccgc
180
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240
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300
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360
gagagcccc ctgggggagc gcccccatc ttctgcct cggacgggca agccctggtc
420
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480
ctggctgcag atcctgagac ccggacagtg gcagtgaac aggtatcagt gcctctgcaa
540
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600
acattagga aatctgattg gggccgggcg tgggtggctca agcctgtaat cccagcactt
660
tgggaggccg aggcgggcgg atcgcttgaa cccaggagtt cgagaccagc ctgagcgaca
720
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780
atcgggaggg tgaagcggga ggatcccttg agcccagtag gtcaaggggt tagtgagcag
840
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900
aagaaaaaat atggc
915

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&lt;210&gt; 3970

&lt;211&gt; 89

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3970

```

Met Gly Glu Val Glu Ala Pro Gly Arg Leu Trp Leu Glu Ser Pro Pro
1          5          10          15
Gly Gly Ala Pro Pro Ile Phe Leu Pro Ser Asp Gly Gln Ala Leu Val
20          25          30
Leu Gly Arg Gly Pro Leu Thr Gln Val Thr Asp Arg Lys Cys Ser Arg
35          40          45
Thr Gln Val Glu Leu Val Ala Asp Pro Glu Thr Arg Thr Val Ala Val
50          55          60
Lys Gln Val Ser Val Pro Leu Gln Gly Pro Ala Arg Pro Gly Asp Gly
65          70          75          80
Ile Trp Gly Gly Ile Ala Ser Arg Gln

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85

<210> 3971  
 <211> 433  
 <212> DNA  
 <213> Homo sapiens

<400> 3971  
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 gacagatatg tggattaaag agctctggga aaaaaatgga gcatggaagg gagagcccg  
 120  
 ctggggaacg ggtaatcaga gaaaccctca ctcatagggt ggtgcccttt atgcagagac  
 180  
 ttaaaggaag gagggaggtc ccctgacaga gagaatggta agtgcaaagg tcttgggtgg  
 240  
 gcttgtgttg aggaagagca aggccagtgt ggctggaaca gactgagtga aggggagaga  
 300  
 gttgtaagca atgagcttag acaggaaatg gggctctggtt cacatgggaa atggtaggac  
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 420  
 ctaatcacca gaa  
 433

<210> 3972  
 <211> 120  
 <212> PRT  
 <213> Homo sapiens

<400> 3972  
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 20 25 30  
 Trp Pro Cys Ser Ser Ser Thr Gln Ala His Pro Gly Pro Leu His Leu  
 35 40 45  
 Pro Phe Ser Leu Ser Gly Asp Leu Pro Pro Ser Phe Lys Ser Leu His  
 50 55 60  
 Lys Gly His His Pro Met Ser Glu Gly Phe Ser Asp Tyr Pro Phe Pro  
 65 70 75 80  
 Ser Arg Ala Leu Pro Ser Met Leu His Phe Phe Pro Arg Ala Leu Asn  
 85 90 95  
 Thr Thr Tyr Leu Ser Phe Ile Phe Ser Leu Ser Phe Phe Cys Leu Leu  
 100 105 110  
 Pro Leu Glu His His Gln Ser Arg  
 115 120

<210> 3973  
 <211> 984  
 <212> DNA  
 <213> Homo sapiens

<400> 3973

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 caaccataca gagtcaaggt catcgacttt gggtcagcca gccacgtgtc caaggctgtg  
 120  
 tgctccacct acttgagtc cagatattac agggccctg agatcctctt tggtttacca  
 180  
 ttttgtgagg caattgacat gtggtcctg ggctgtgtta ttgcagaatt gttcctgggt  
 240  
 tggcgttat atccaggagc ttcggagtat gatcagattc ggtatatttc aaaaacacag  
 300  
 ggtttgctg ctgaatattt attaagcgcc gggacaaaga caactaggtt tttcaaccgt  
 360  
 gacacggact caccatatcc tttgtggaga ctgaagacac cagatgacca tgaagcagag  
 420  
 acagggatta agtcaaaaga agcaagaaag tacattttca actgtttaga tgatatggcc  
 480  
 caggtgaaca tgacgacaga tttggaaggg agcgacatgt tggtagaaa ggctgaccgg  
 540  
 cgggagttca ttgacctgtt gaagaagatg ctgaccattg atgctgacaa gagaatcact  
 600  
 ccaatcgaaa ccctgaacca tccctttgtc accatgacac acttactcga tttccccac  
 660  
 agcacacacg tcaaatcatg tttccagaac atggagatct gcaagcgtcg ggtgaatatg  
 720  
 tatgacacgg tgaaccagag caaaaccctt ttcacacgc acgtggcccc cagcagctcc  
 780  
 accaacctga ccatgacctt taacaaccag ctgaccactg tccacaacca gccctcagcg  
 840  
 gcatccatgg ctgcagcggc ccagcggagc atgccctgc agacaggaac agcccagatt  
 900  
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 960  
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 984

&lt;210&gt; 3974

&lt;211&gt; 328

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3974

Leu	Gly	Leu	Ile	His	Ala	Asp	Leu	Lys	Pro	Glu	Asn	Ile	Met	Leu	Val
1				5				10					15		
Asp	Pro	Ser	Arg	Gln	Pro	Tyr	Arg	Val	Lys	Val	Ile	Asp	Phe	Gly	Ser
			20					25					30		
Ala	Ser	His	Val	Ser	Lys	Ala	Val	Cys	Ser	Thr	Tyr	Leu	Gln	Ser	Arg
			35				40					45			
Tyr	Tyr	Arg	Ala	Pro	Glu	Ile	Ile	Leu	Gly	Leu	Pro	Phe	Cys	Glu	Ala
	50					55				60					
Ile	Asp	Met	Trp	Ser	Leu	Gly	Cys	Val	Ile	Ala	Glu	Leu	Phe	Leu	Gly
65				70					75					80	
Trp	Pro	Leu	Tyr	Pro	Gly	Ala	Ser	Glu	Tyr	Asp	Gln	Ile	Arg	Tyr	Ile
			85					90						95	
Ser	Gln	Thr	Gln	Gly	Leu	Pro	Ala	Glu	Tyr	Leu	Leu	Ser	Ala	Gly	Thr

100	105	110
Lys Thr Thr Arg Phe Phe Asn Arg Asp Thr Asp Ser Pro Tyr Pro Leu		
115	120	125
Trp Arg Leu Lys Thr Pro Asp Asp His Glu Ala Glu Thr Gly Ile Lys		
130	135	140
Ser Lys Glu Ala Arg Lys Tyr Ile Phe Asn Cys Leu Asp Asp Met Ala		
145	150	155
Gln Val Asn Met Thr Thr Asp Leu Glu Gly Ser Asp Met Leu Val Glu		
165	170	175
Lys Ala Asp Arg Arg Glu Phe Ile Asp Leu Leu Lys Lys Met Leu Thr		
180	185	190
Ile Asp Ala Asp Lys Arg Ile Thr Pro Ile Glu Thr Leu Asn His Pro		
195	200	205
Phe Val Thr Met Thr His Leu Leu Asp Phe Pro His Ser Thr His Val		
210	215	220
Lys Ser Cys Phe Gln Asn Met Glu Ile Cys Lys Arg Arg Val Asn Met		
225	230	235
Tyr Asp Thr Val Asn Gln Ser Lys Thr Pro Phe Ile Thr His Val Ala		
245	250	255
Pro Ser Thr Ser Thr Asn Leu Thr Met Thr Phe Asn Asn Gln Leu Thr		
260	265	270
Thr Val His Asn Gln Pro Ser Ala Ala Ser Met Ala Ala Ala Gln		
275	280	285
Arg Ser Met Pro Leu Gln Thr Gly Thr Ala Gln Ile Cys Ala Arg Pro		
290	295	300
Asp Pro Phe Gln Gln Ala Leu Ile Val Cys Pro Pro Gly Leu Gln Ala		
305	310	315
Leu Gln Ala Ser Pro Phe Thr Arg		320
325		

&lt;210&gt; 3975

&lt;211&gt; 593

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3975

```

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cgccagcct ccaacctcct cacagggaga gcctccctct ccactctctc cccagggatg
120
gctcttgggg gctcaaggga gcctgggcct ctgccagcct gcaagctgcc tccaactctc
180
agtcaggatt tggatgcccc cagtgcagtc ctgaggccgc cgccccccat cctactatcc
240
tgcttctgag gcgtctcgga atcataggcc tcccgtggaa ggggagcagc aggcgaggtc
300
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360
accaccaggg taccagatc ccaggcggct cagccaggcc cagagcccca agagctgggc
420
tggtctctcc aactgggatc tggggtaggg gctgctcccc caagtccttg ggggactgtc
480
tgggacatcc aggcctgtc ttcttgtctt aaccactcac aacagagaac acgatgttct
540

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593

<210> 3976

<211> 101

<212> PRT

<213> Homo sapiens

<400> 3976

Met	Gly	Phe	Ser	Leu	Leu	Glu	Gly	Pro	Ala	Ser	Leu	Gln	Pro	Pro	His
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Arg	Glu	Ser	Leu	Pro	Leu	His	Ser	Leu	Pro	Arg	Asp	Gly	Ser	Trp	Gly
			20					25					30		
Leu	Lys	Gly	Ala	Trp	Ala	Ser	Ala	Ser	Leu	Gln	Ala	Ala	Ser	Asn	Ser
		35					40					45			
Gln	Ser	Gly	Phe	Gly	Cys	Pro	Gln	Cys	Ser	Pro	Glu	Ala	Ala	Ala	Pro
	50					55					60				
His	Pro	Thr	Ile	Leu	Leu	Leu	Arg	Arg	Leu	Gly	Ile	Ile	Gly	Leu	Pro
65				70						75				80	
Trp	Lys	Gly	Ser	Ser	Arg	Arg	Gly	Leu	Arg	Glu	Pro	His	Arg	Cys	Pro
				85				90						95	
Leu	Ala	Cys	Gln	Thr											
				100											

<210> 3977

<211> 2668

<212> DNA

<213> Homo sapiens

<400> 3977

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120  
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180  
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240  
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300  
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420  
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480  
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660  
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720

atcctggaaa cagtctacaa acacagctgt ggggggttgc ctctgttcg aagtgcactg  
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900  
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1200  
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1260  
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1320  
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1380  
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1440  
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1560  
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2340

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 2580  
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<210> 3978

<211> 667

<212> PRT

<213> Homo sapiens

<400> 3978

Met	Ile	His	Glu	Leu	Leu	Leu	Ala	Leu	Ser	Gly	Tyr	Pro	Gly	Ser	Ile
1				5					10					15	
Phe	Thr	Trp	Asn	Lys	Arg	Ser	Gly	Leu	Gln	Val	Ser	Gln	Asp	Phe	Pro
			20					25					30		
Phe	Leu	His	Pro	Ser	Glu	Thr	Ser	Val	Leu	Asn	Arg	Leu	Cys	Arg	Leu
		35					40					45			
Gly	Thr	Asp	Tyr	Ile	Arg	Phe	Thr	Glu	Phe	Ile	Glu	Gln	Tyr	Thr	Gly
	50				55						60				
His	Val	Gln	Gln	Gln	Asp	His	His	Pro	Ser	Gln	Gln	Gly	Gln	Gly	Gly
65					70					75					80
Leu	His	Gly	Ile	Tyr	Leu	Arg	Ala	Phe	Cys	Thr	Gly	Leu	Asp	Ser	Val
			85						90					95	
Leu	Gln	Pro	Tyr	Arg	Gln	Ala	Leu	Leu	Asp	Leu	Glu	Gln	Glu	Phe	Leu
		100						105					110		
Gly	Asp	Pro	His	Leu	Ser	Ile	Ser	His	Val	Asn	Tyr	Phe	Leu	Asp	Gln
		115					120						125		
Phe	Gln	Leu	Leu	Phe	Pro	Ser	Val	Met	Val	Val	Val	Glu	Gln	Ile	Lys
	130						135					140			
Ser	Gln	Lys	Ile	His	Gly	Cys	Gln	Ile	Leu	Glu	Thr	Val	Tyr	Lys	His
145				150					155						160
Ser	Cys	Gly	Gly	Leu	Pro	Pro	Val	Arg	Ser	Ala	Leu	Glu	Lys	Ile	Leu
			165					170						175	
Ala	Val	Cys	His	Gly	Val	Met	Tyr	Lys	Gln	Leu	Ser	Ala	Trp	Met	Leu
		180						185					190		
His	Gly	Leu	Leu	Leu	Asp	Gln	His	Glu	Glu	Phe	Phe	Ile	Lys	Gln	Gly
	195						200						205		
Pro	Ser	Ser	Gly	Asn	Val	Ser	Ala	Gln	Pro	Glu	Glu	Asp	Glu	Glu	Asp
	210					215						220			
Leu	Gly	Ile	Gly	Gly	Leu	Thr	Gly	Lys	Gln	Leu	Arg	Glu	Leu	Gln	Asp
225					230					235					240
Leu	Arg	Leu	Ile	Glu	Glu	Glu	Asn	Met	Leu	Ala	Pro	Ser	Leu	Lys	Gln
			245					250						255	
Phe	Ser	Leu	Arg	Val	Glu	Ile	Leu	Pro	Ser	Tyr	Ile	Pro	Val	Arg	Val
		260					265						270		
Ala	Glu	Lys	Ile	Leu	Phe	Val	Gly	Glu	Ser	Val	Gln	Met	Phe	Glu	Asn

275	280	285
Gln Asn Val Asn Leu Thr Arg Lys Gly Ser Ile Leu Lys Asn Gln Glu		
290	295	300
Asp Thr Phe Ala Ala Glu Leu His Arg Leu Lys Gln Gln Pro Leu Phe		
305	310	315
Ser Leu Val Asp Phe Glu Gln Val Val Asp Arg Ile Arg Ser Thr Val		
325	330	335
Ala Glu His Leu Trp Lys Leu Met Val Glu Glu Ser Asp Leu Leu Gly		
340	345	350
Gln Leu Lys Ile Ile Lys Asp Phe Tyr Leu Leu Gly Arg Gly Glu Leu		
355	360	365
Phe Gln Ala Phe Ile Asp Thr Ala Gln His Met Leu Lys Thr Pro Pro		
370	375	380
Thr Ala Val Thr Glu His Asp Val Asn Val Ala Phe Gln Gln Ser Ala		
385	390	395
His Lys Val Leu Leu Asp Asp Asp Asn Leu Leu Pro Leu Leu His Leu		
405	410	415
Thr Ile Glu Tyr His Xaa Glu Arg Ser Thr Lys Met Leu Leu Arg Xaa		
420	425	430
Arg Glu Gly Pro Ser Arg Glu Thr Ser Pro Arg Glu Ala Pro Ala Ser		
435	440	445
Gly Trp Ala Ala Leu Gly Leu Ser Tyr Lys Val Gln Trp Pro Leu His		
450	455	460
Ile Leu Phe Thr Pro Ala Val Leu Glu Lys Tyr Asn Val Val Phe Lys		
465	470	475
Tyr Leu Leu Ser Val Arg Arg Val Gln Ala Glu Leu Gln His Cys Trp		
485	490	495
Ala Leu Gln Met Gln Arg Lys His Leu Lys Ser Asn Gln Thr Asp Ala		
500	505	510
Ile Lys Trp Arg Leu Arg Asn His Met Ala Phe Leu Val Asp Asn Leu		
515	520	525
Gln Tyr Tyr Leu Gln Val Asp Val Leu Glu Ser Gln Phe Ser Gln Leu		
530	535	540
Leu His Gln Ile Asn Ser Thr Arg Asp Phe Glu Ser Ile Arg Leu Ala		
545	550	555
His Asp His Phe Leu Ser Asn Leu Leu Ala Gln Ser Phe Ile Leu Leu		
565	570	575
Lys Pro Val Phe His Cys Leu Asn Glu Ile Leu Asp Leu Cys His Ser		
580	585	590
Phe Cys Ser Leu Val Ser Gln Asn Leu Gly Pro Leu Asp Glu Arg Gly		
595	600	605
Ala Ala Gln Leu Ser Ile Leu Val Lys Gly Phe Ser Arg Gln Ser Ser		
610	615	620
Leu Leu Phe Lys Ile Leu Ser Ser Val Arg Asn His Gln Ile Asn Ser		
625	630	635
Asp Leu Ala Gln Leu Leu Arg Leu Asp Tyr Asn Lys Tyr Tyr Thr		
645	650	655
Gln Ala Gly Gly Thr Leu Gly Ser Phe Gly Met		
660	665	

&lt;210&gt; 3979

&lt;211&gt; 2746

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens



&lt;400&gt; 3979

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caggcggtga cgagctgctc aggtgcgagt gccgggggca caggggtggg caggggcccg  
120  
gtcagaggtg tccgggtcag aggacgcgtg cgataatctg cgtgcattcg tcgataactg  
180  
tctatgcgaa gcaccgacgc agccatgagt acctgcgggg cttcactctg tgccacaacg  
240  
agcgaaccgc tgtacaggag ctgcactagc tgcgcaccg tctgcacagg caccaccgaa  
300  
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360  
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420  
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480  
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600  
gagctgcaga aaacgtata gcaagggtga agctttatcc actctgactc acccagaaa  
660  
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720  
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900  
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960  
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1080  
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1140  
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1200  
tcttcttggc gtgatgccat ggtccaggat attacacaga aatttgcgca ccatattatt  
1260  
gcaggaagat taatggttat acatgctcca gaggagtatt acccaatcct agatggcctt  
1320  
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1380  
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1560

tctcatgac tcccacgttt ggcccatttt ttattaatgt tttatcaaga aatgccttgt  
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 aaggatgatg attttgaaga ggagtcattt gacattcctg ataaccccc tgcaagtctg  
 1800  
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 1860  
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 1920  
 ccaattataa taaaaaaaaat taaagtaaact actggaacag aagatcggca aaatgatatt  
 1980  
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 2040  
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 2100  
 aatcaaaaaa ttccatttga tatacattgt atgaggatat atgtcaccaa aacacaaaag  
 2160  
 gaatggctaa ttattaggag tattagcatt tggacttctt agccaattaa atcagtatgt  
 2220  
 tcagtttctg aagcagttct tctgtcttcg tcttttgcta cctttgtctt ttggagggaa  
 2280  
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 2340  
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 2400  
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 2460  
 ttcaactgat tgcgaaagg gtaatatgaa agatttttaa tgaaaaaaat ttgttgatg  
 2520  
 atgatttttg aaaaatagtc accaactgta tatacttctt caagaactga taattcatta  
 2580  
 tatcatcaga tagcttttat taagcatctg tgggaatata cagttgggtg gaatgataat  
 2640  
 ctgggttatt tttctgtaa acttaagttt ccgttgactt ctgtacatct acaatgaata  
 2700  
 cctctcata gaagtgggtg ctttacataa tttttgtgt aggtga  
 2746

&lt;210&gt; 3980

&lt;211&gt; 478

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3980

Met	Phe	Lys	Phe	His	Gln	Met	Lys	His	Ile	Phe	Glu	Ile	Leu	Asp	Lys
1				5					10				15		
Met	Arg	Cys	Leu	Arg	Lys	Arg	Ser	Thr	Val	Ser	Phe	Leu	Gly	Val	Leu
			20					25				30			
Val	Ile	Phe	Leu	Leu	Phe	Met	Asn	Leu	Tyr	Ile	Glu	Asp	Ser	Tyr	Val
		35					40					45			
Leu	Glu	Gly	Asp	Lys	Gln	Leu	Ile	Arg	Glu	Thr	Ser	Thr	His	Gln	Leu

50	55	60
Asn Ser Glu Arg Tyr	Val His Thr Phe Lys Asp Leu Ser Asn Phe Ser	
65	70	75
Gly Ala Ile Asn Val Thr Tyr Arg Tyr Leu Ala Ala Thr Pro Leu Gln		80
	85	90
Arg Lys Arg Tyr Leu Thr Ile Gly Leu Ser Ser Val Lys Arg Lys Lys		95
	100	105
Gly Asn Tyr Leu Leu Glu Thr Ile Lys Ser Ile Phe Glu Gln Ser Ser		110
	115	120
Tyr Glu Glu Leu Lys Glu Ile Ser Val Val Val His Leu Ala Asp Phe		125
	130	135
Asn Ser Ser Trp Arg Asp Ala Met Val Gln Asp Ile Thr Gln Lys Phe		140
145	150	155
Ala His His Ile Ile Ala Gly Arg Leu Met Val Ile His Ala Pro Glu		160
	165	170
Glu Tyr Tyr Pro Ile Leu Asp Gly Leu Lys Arg Asn Tyr Asn Asp Pro		175
	180	185
Glu Asp Arg Val Lys Phe Arg Ser Lys Gln Asn Val Asp Tyr Ala Phe		190
	195	200
Leu Leu Asn Phe Cys Ala Asn Thr Ser Asp Tyr Tyr Val Met Leu Glu		205
	210	215
Asp Asp Val Arg Cys Ser Lys Asn Phe Leu Thr Ala Ile Lys Lys Val		220
225	230	235
Ile Ala Ser Leu Glu Gly Thr Tyr Trp Val Thr Leu Glu Phe Ser Lys		240
	245	250
Leu Gly Tyr Ile Gly Lys Leu Tyr His Ser His Asp Leu Pro Arg Leu		255
	260	265
Ala His Phe Leu Leu Met Phe Tyr Gln Glu Met Pro Cys Asp Trp Leu		270
	275	280
Leu Thr His Phe Arg Gly Leu Ala Gln Lys Asn Val Ile Arg Phe		285
	290	295
Lys Pro Ser Leu Phe Gln His Met Gly Tyr Tyr Ser Ser Tyr Lys Gly		300
305	310	315
Thr Glu Asn Lys Leu Lys Asp Asp Asp Phe Glu Glu Glu Ser Phe Asp		320
	325	330
Ile Pro Asp Asn Pro Pro Ala Ser Leu Tyr Thr Asn Met Asn Val Phe		335
	340	345
Glu Asn Tyr Glu Ala Ser Lys Ala Tyr Ser Ser Val Asp Glu Tyr Phe		350
	355	360
Trp Gly Lys Pro Pro Ser Thr Gly Asp Val Phe Val Ile Val Phe Glu		365
	370	375
Asn Pro Ile Ile Ile Lys Lys Ile Lys Val Asn Thr Gly Thr Glu Asp		380
385	390	395
Arg Gln Asn Asp Ile Leu His His Gly Ala Leu Asp Val Gly Glu Asn		400
	405	410
Val Met Pro Ser Lys Gln Arg Arg Gln Cys Ser Ser Tyr Leu Arg Leu		415
	420	425
Gly Glu Phe Lys Asn Gly Asn Phe Glu Met Ser Gly Val Asn Gln Lys		430
	435	440
Ile Pro Phe Asp Ile His Cys Met Arg Ile Tyr Val Thr Lys Thr Gln		445
	450	455
Lys Glu Trp Leu Ile Ile Arg Ser Ile Ser Ile Trp Thr Ser		460
465	470	475

&lt;210&gt; 3981

&lt;211&gt; 4447

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3981

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60  
cggaactgta agagcaaaga ggcggaaatt aagagaatca acaaggaact ggccaacatc  
120  
cgctccaagt tcaaaggaga caaggctttg gatggctaca gtaagaaaaa atatgtgtgt  
180  
aaactgcttt tcatcttcc tcttggtcat gacattgact ttgggcacat ggaggctgtg  
240  
aatctgttga gttccaataa atacacagag aagcaaatag gttacctgtt catttctgtg  
300  
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360  
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420  
cgggagatgg ccgaggcctt cgcgggggag atccctaagg tctcgttagc cggagacact  
480  
atggacagcg tgaagcagag cgcggccctg tgcttgtgc gccgttacag gacgtccccc  
540  
gatcttgtcc ccatgggcca ctggacatcc cgagtgtgac acctgctcaa tgaccagcac  
600  
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660  
gagtttaaaa cctccgtgtc tctggctgtc tctaggctaa gcagaatcgt gacgtctgca  
720  
tccacagatc tccaggatta cacttactat ttgtcccg ctccttggt gtctgtcaaa  
780  
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840  
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960  
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1080  
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1140  
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1260  
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1320  
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1380  
tggtaccgag tcattcagat cgtcatcaac cgggacgacg tgcagggcta cgcggccaag  
1440

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tacatccttg gggagtttgg gaacctgatt gctggggacc cccgctccag ccccccagtg  
1560  
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1620  
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1800  
atgcccccat tcccggagcg ggagtccctc atcttggcaa agctcaagaa gaagaaggcg  
1860  
cccagcacgg tgacagacct ggaggacacc aagcgggaca ggagtgtgga cgtgaacggg  
1920  
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1980  
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2220  
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2280  
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2340  
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3060

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4440  
aaaaaaa  
4447

&lt;210&gt; 3982

&lt;211&gt; 929

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3982

Arg Gly Leu Ala Val Phe Ile Ser Asp Ile Arg Asn Cys Lys Ser Lys  
 1 5 10 15  
 Glu Ala Glu Ile Lys Arg Ile Asn Lys Glu Leu Ala Asn Ile Arg Ser  
 20 25 30  
 Lys Phe Lys Gly Asp Lys Ala Leu Asp Gly Tyr Ser Lys Lys Lys Tyr  
 35 40 45  
 Val Cys Lys Leu Leu Phe Ile Phe Leu Leu Gly His Asp Ile Asp Phe  
 50 55 60  
 Gly His Met Glu Ala Val Asn Leu Leu Ser Ser Asn Lys Tyr Thr Glu  
 65 70 75 80  
 Lys Gln Ile Gly Tyr Leu Phe Ile Ser Val Leu Val Asn Ser Asn Ser  
 85 90 95  
 Glu Leu Ile Arg Leu Ile Asn Asn Ala Ile Lys Asn Asp Leu Ala Ser  
 100 105 110  
 Arg Asn Pro Thr Phe Met Gly Leu Ala Leu His Cys Ile Ala Ser Val  
 115 120 125  
 Gly Ser Arg Glu Met Ala Glu Ala Phe Ala Gly Glu Ile Pro Lys Val  
 130 135 140  
 Leu Val Ala Gly Asp Thr Met Asp Ser Val Lys Gln Ser Ala Ala Leu  
 145 150 155 160  
 Cys Leu Leu Arg Leu Tyr Arg Thr Ser Pro Asp Leu Val Pro Met Gly  
 165 170 175  
 Asp Trp Thr Ser Arg Val Val His Leu Leu Asn Asp Gln His Leu Gly  
 180 185 190  
 Val Val Thr Ala Ala Thr Ser Leu Ile Thr Thr Leu Ala Gln Lys Asn  
 195 200 205  
 Pro Glu Glu Phe Lys Thr Ser Val Ser Leu Ala Val Ser Arg Leu Ser  
 210 215 220  
 Arg Ile Val Thr Ser Ala Ser Thr Asp Leu Gln Asp Tyr Thr Tyr Tyr  
 225 230 235 240  
 Phe Val Pro Ala Pro Trp Leu Ser Val Lys Leu Leu Arg Leu Leu Gln  
 245 250 255  
 Cys Tyr Pro Pro Pro Asp Pro Ala Val Arg Gly Arg Leu Thr Glu Cys  
 260 265 270  
 Leu Glu Thr Ile Leu Asn Lys Ala Gln Glu Pro Pro Lys Ser Lys Lys  
 275 280 285  
 Val Gln His Ser Asn Ala Lys Asn Ala Val Leu Phe Glu Ala Ile Ser  
 290 295 300  
 Leu Ile Ile His His Asp Ser Glu Pro Asn Leu Leu Val Arg Ala Cys  
 305 310 315 320  
 Asn Gln Leu Gly Gln Phe Leu Gln His Arg Glu Thr Asn Leu Arg Tyr  
 325 330 335  
 Leu Ala Leu Glu Ser Met Cys Thr Leu Ala Ser Ser Glu Phe Ser His  
 340 345 350  
 Glu Ala Val Lys Thr His Ile Asp Thr Val Ile Asn Ala Leu Lys Thr  
 355 360 365  
 Glu Arg Asp Val Ser Val Arg Gln Arg Ala Ala Asp Leu Leu Tyr Ala  
 370 375 380  
 Met Cys Asp Arg Ser Asn Ala Lys Gln Ile Val Ser Glu Met Leu Ser  
 385 390 395 400  
 Tyr Leu Glu Thr Ala Asp Tyr Ser Ile Arg Glu Glu Ile Val Leu Lys  
 405 410 415  
 Val Ala Ile Leu Ala Glu Lys Tyr Ala Val Asp Tyr Thr Trp Tyr Val

420				425				430							
Asp	Thr	Ile	Leu	Asn	Leu	Ile	Arg	Ile	Ala	Gly	Asp	Tyr	Val	Ser	Glu
435				440				445							
Glu	Val	Trp	Tyr	Arg	Val	Ile	Gln	Ile	Val	Ile	Asn	Arg	Asp	Asp	Val
450				455				460							
Gln	Gly	Tyr	Ala	Ala	Lys	Thr	Val	Phe	Glu	Ala	Leu	Gln	Ala	Pro	Ala
465				470				475				480			
Cys	His	Glu	Asn	Met	Val	Lys	Val	Gly	Gly	Tyr	Ile	Leu	Gly	Glu	Phe
485				490				495							
Gly	Asn	Leu	Ile	Ala	Gly	Asp	Pro	Arg	Ser	Ser	Pro	Pro	Val	Gln	Phe
500				505				510							
Ser	Leu	Leu	His	Ser	Lys	Phe	His	Leu	Cys	Ser	Val	Ala	Thr	Arg	Ala
515				520				525							
Leu	Leu	Leu	Ser	Thr	Tyr	Ile	Lys	Phe	Val	Asn	Leu	Phe	Pro	Glu	Val
530				535				540							
Lys	Pro	Thr	Ile	Gln	Asp	Val	Leu	Arg	Ser	Asp	Ser	Gln	Leu	Arg	Asn
545				550				555				560			
Ala	Asp	Val	Glu	Leu	Gln	Gln	Arg	Ala	Val	Glu	Tyr	Leu	Arg	Leu	Ser
565				570				575							
Thr	Val	Ala	Ser	Thr	Asp	Ile	Leu	Ala	Thr	Val	Leu	Glu	Glu	Met	Pro
580				585				590							
Pro	Phe	Pro	Glu	Arg	Glu	Ser	Ser	Ile	Leu	Ala	Lys	Leu	Lys	Lys	Lys
595				600				605							
Lys	Gly	Pro	Ser	Thr	Val	Thr	Asp	Leu	Glu	Asp	Thr	Lys	Arg	Asp	Arg
610				615				620							
Ser	Val	Asp	Val	Asn	Gly	Gly	Pro	Glu	Pro	Ala	Pro	Ala	Ser	Thr	Ser
625				630				635				640			
Ala	Val	Ser	Thr	Pro	Ser	Pro	Ser	Ala	Asp	Leu	Leu	Gly	Leu	Gly	Ala
645				650				655							
Ala	Pro	Pro	Ala	Pro	Ala	Gly	Pro	Pro	Pro	Ser	Ser	Gly	Gly	Ser	Gly
660				665				670							
Leu	Leu	Val	Asp	Val	Phe	Ser	Asp	Ser	Ala	Ser	Val	Val	Ala	Pro	Leu
675				680				685							
Ala	Pro	Gly	Ser	Glu	Asp	Asn	Phe	Ala	Arg	Phe	Val	Cys	Lys	Asn	Asn
690				695				700							
Gly	Val	Leu	Phe	Glu	Asn	Gln	Leu	Leu	Gln	Ile	Gly	Leu	Lys	Ser	Glu
705				710				715				720			
Phe	Arg	Gln	Asn	Leu	Gly	Arg	Met	Phe	Ile	Phe	Tyr	Gly	Asn	Lys	Thr
725				730				735							
Ser	Thr	Gln	Phe	Leu	Asn	Phe	Thr	Pro	Thr	Leu	Ile	Cys	Ser	Asp	Asp
740				745				750							
Leu	Gln	Pro	Asn	Leu	Asn	Leu	Gln	Thr	Lys	Pro	Val	Asp	Pro	Thr	Val
755				760				765							
Glu	Gly	Gly	Ala	Gln	Val	Gln	Gln	Val	Val	Asn	Ile	Glu	Cys	Val	Ser
770				775				780							
Asp	Phe	Thr	Glu	Ala	Pro	Val	Leu	Asn	Ile	Gln	Phe	Arg	Tyr	Gly	Gly
785				790				795				800			
Thr	Phe	Gln	Asn	Val	Ser	Val	Gln	Leu	Pro	Ile	Thr	Leu	Asn	Lys	Phe
805				810				815							
Phe	Gln	Pro	Thr	Glu	Met	Ala	Ser	Gln	Asp	Phe	Phe	Gln	Arg	Trp	Lys
820				825				830							
Gln	Leu	Ser	Asn	Pro	Gln	Gln	Glu	Val	Gln	Asn	Ile	Phe	Lys	Ala	Lys
835				840				845							
His	Pro	Met	Asp	Thr	Glu	Val	Thr	Lys	Ala	Lys	Ile	Ile	Gly	Phe	Gly



850	855	860
Ser Ala Leu Leu Glu Glu Val Asp Pro Asn Pro Ala Asn Phe Val Gly		
865	870	875
Ala Gly Ile Ile His Thr Lys Thr Thr Gln Ile Gly Cys Leu Leu Arg		880
	885	890
Leu Glu Pro Asn Leu Gln Ala Gln Met Tyr Arg Leu Thr Leu Arg Thr		895
	900	905
Ser Lys Glu Ala Val Ser Gln Arg Leu Cys Glu Leu Leu Ser Ala Gln		910
	915	920
		925
Phe		

&lt;210&gt; 3983

&lt;211&gt; 2300

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3983

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1080

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 2280  
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 2300

&lt;210&gt; 3984

&lt;211&gt; 484

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3984

Xaa	His	Gly	Glu	Ile	Thr	Glu	Glu	Arg	Asp	Ile	Leu	Ser	Arg	Gln	Gln
1				5				10						15	
Gly	Asp	His	Val	Ala	Arg	Ile	Leu	Glu	Leu	Glu	Asp	Asp	Ile	Gln	Thr
			20					25					30		
Ile	Ser	Glu	Lys	Val	Leu	Thr	Lys	Glu	Val	Glu	Leu	Asp	Arg	Leu	Arg

35	40	45
Asp Thr Val Lys Ala Leu Thr Arg Glu Gln Glu Lys Leu Leu Gly Gln		
50	55	60
Leu Lys Glu Val Gln Ala Asp Lys Glu Gln Ser Glu Ala Glu Leu Gln		
65	70	75
Val Ala Gln Gln Glu Asn His His Leu Asn Leu Asp Leu Lys Glu Ala		
85	90	95
Lys Ser Trp Gln Glu Glu Gln Ser Ala Gln Ala Gln Arg Leu Lys Asp		
100	105	110
Lys Val Ala Gln Met Lys Asp Thr Leu Gly Gln Ala Gln Gln Arg Val		
115	120	125
Ala Glu Leu Glu Pro Leu Lys Glu Gln Leu Arg Gly Ala Gln Glu Leu		
130	135	140
Ala Ala Ser Ser Gln Gln Lys Ala Thr Leu Leu Gly Glu Glu Leu Ala		
145	150	155
Ser Ala Ala Ala Ala Arg Asp Arg Thr Ile Ala Glu Leu His Arg Ser		
165	170	175
Arg Leu Glu Val Ala Glu Val Asn Gly Arg Leu Ala Glu Leu Gly Leu		
180	185	190
His Leu Lys Glu Glu Lys Cys Gln Trp Ser Lys Glu Arg Ala Gly Leu		
195	200	205
Leu Gln Ser Val Glu Ala Glu Lys Asp Lys Ile Leu Lys Leu Ser Ala		
210	215	220
Glu Ile Leu Arg Leu Glu Lys Ala Val Gln Glu Glu Lys Thr Gln Asn		
225	230	235
Gln Val Phe Lys Thr Glu Leu Ala Arg Glu Lys Asp Ser Ser Leu Val		
245	250	255
Gln Leu Ser Glu Ser Lys Arg Glu Leu Thr Glu Leu Arg Ser Ala Leu		
260	265	270
Arg Val Leu Gln Lys Glu Lys Glu Gln Leu Gln Glu Lys Gln Glu		
275	280	285
Leu Leu Glu Tyr Met Arg Lys Leu Glu Ala Arg Leu Glu Lys Val Ala		
290	295	300
Asp Glu Lys Trp Asn Glu Asp Ala Thr Thr Glu Asp Glu Glu Ala Ala		
305	310	315
Val Gly Leu Ser Cys Pro Ala Ala Leu Thr Asp Ser Glu Asp Glu Ser		
325	330	335
Pro Glu Asp Met Arg Leu Pro Pro Tyr Gly Leu Cys Glu Arg Gly Asp		
340	345	350
Pro Gly Ser Ser Pro Ala Gly Pro Arg Glu Ala Ser Pro Leu Val Val		
355	360	365
Ile Ser Gln Pro Ala Pro Ile Ser Pro His Leu Ser Gly Pro Ala Glu		
370	375	380
Asp Ser Ser Ser Asp Ser Glu Ala Glu Asp Glu Lys Ser Val Leu Met		
385	390	395
Ala Ala Val Gln Ser Gly Gly Glu Glu Ala Asn Leu Leu Leu Pro Glu		
405	410	415
Leu Gly Ser Ala Phe Tyr Asp Met Ala Ser Gly Phe Thr Val Gly Thr		
420	425	430
Leu Ser Glu Thr Ser Thr Gly Gly Pro Ala Thr Pro Thr Trp Lys Glu		
435	440	445
Cys Pro Ile Cys Lys Glu Arg Phe Pro Ala Glu Ser Asp Lys Asp Ala		
450	455	460
Leu Glu Asp His Met Asp Gly His Phe Phe Phe Ser Thr Gln Asp Pro		

465  
Phe Thr Phe Glu

470

475

480

&lt;210&gt; 3985

&lt;211&gt; 523

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3985

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120

aaaagcggca cctccactc tctctctctc ggtccttctt tctctgtgtg atgagcctgc  
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240

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300

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420

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480

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523

&lt;210&gt; 3986

&lt;211&gt; 110

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3986

Ala Cys Ser Leu Phe Ala Phe Tyr Tyr Asp Trp Lys Leu Pro Glu Ala  
1 5 10 15

Ser Ser Glu Ala Asp Ala Ala Ile Phe Pro Val Gln Pro Gly Thr Val  
20 25 30

Lys Val Glu Val Ala Pro Gly Thr Ser Val Leu Ser Ser Ser Ala Ser  
35 40 45

Ser Ser Cys Phe Cys Cys Cys Cys Cys Cys Cys Cys Cys Cys Cys  
50 55 60

Cys Cys Trp Met Arg Leu Arg Ser Glu Arg Leu Ser Ser Ala Leu Ala  
65 70 75 80

Ala Ala Gly Thr Ser Arg Ala Phe Ser Ser Pro Thr Ala Arg Pro Arg  
85 90 95

Ser Arg Val Gln Gly Thr Arg Arg Gln Ser Leu Ala Met Ala  
100 105 110

&lt;210&gt; 3987

&lt;211&gt; 5954

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3987

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<212> PRT

<213> Homo sapiens

<400> 3988

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Ile Lys Thr Cys Thr Pro Ala Pro Gly Thr Val Ser Asn Ala Asn Pro				
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Gln Ser Gly Pro Pro Pro Arg Val Glu Phe Asp Asp Asn Asn Pro Phe				
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Ser Glu Ser Phe Gln Glu Arg Glu Arg Lys Glu Arg Leu Arg Glu Gln				
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Gln Glu Arg Gln Arg Ile Gln Leu Met Gln Glu Val Asp Arg Gln Arg				
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Ser Asp Leu Pro Cys Asp Phe Met Gln Pro Leu Gly Pro Leu Gln Gln				
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Ser Pro Gln His Gln Gln Gln Met Gly Gln Val Leu Gln Gln Gln Asn				
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Ile Gln Gln Gly Ser Ile Asn Ser Pro Ser Thr Gln Thr Phe Met Gln				
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Thr Asn Glu Arg Arg Gln Val Gly Pro Pro Ser Phe Val Pro Asp Ser				
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Glu Lys Lys Lys Lys Arg Thr Arg Lys Lys Lys Arg Asp Asp Asp				
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3156

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Pro Asp Val Pro Ser Met Gly Leu Val Ser Ser His Arg Ile Asn Pro		
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Gly Leu Glu Tyr Arg Gln His Leu Leu Leu Arg Gly Pro Pro Pro Gly		
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Ser Ala Asn Pro Pro Arg Leu Val Ser Ser Tyr Arg Leu Lys Gln Pro		
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Asn Val Pro Phe Pro Pro Thr Ser Asn Gly Leu Ser Gly Tyr Lys Asp		
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Ser Ser His Gly Ile Ala Glu Ser Ala Ala Leu Arg Pro Gln Trp Cys		
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Cys His Cys Lys Val Val Ile Leu Gly Ser Gly Val Arg Lys Ser Phe		
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Lys Asp Leu Thr Leu Leu Asn Lys Asp Ser Arg Glu Ser Thr Lys Arg		
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Val Glu Lys Asp Ile Val Phe Cys Ser Asn Asn Cys Phe Ile Leu Tyr		
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Ser Leu Pro Gln Ser Pro Met Arg Glu Thr Pro Ser Lys Ala Phe His		
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Gln Tyr Ser Asn Asn Ile Ser Thr Leu Asp Val His Cys Leu Pro Gln		
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Lys Trp Ser Ile His Ile Val Ile Pro Lys Gly Thr Phe Lys Pro Pro		
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Cys Glu Asp Glu Ile Asp Glu Phe Leu Lys Lys Leu Gly Thr Ser Leu		
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Val Tyr Glu Thr Gln Ala Gly Ala Leu Ile Asn Val Glu Leu Ala Leu		

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				Cys	His
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<211> 955

<212> PRT

<213> Homo sapiens

<400> 3990

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Arg	Ser	Arg	Ser	Leu	Ser	Arg	Ser	Arg	Lys	Arg	Arg	Leu	Ser	Ser	Arg
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Pro	Arg	Val	Tyr	Gln	Asn	Arg	Asp	Phe	Arg	Gly	His	Asn	Arg	Gly	Tyr
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Gly	Thr	Ser	Gln	Asp	Thr	Lys	Ala	Ser	Glu	Ser	Ser	Lys	Pro	Trp	Pro
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Asp	Ala	Thr	Tyr	Gly	Thr	Gly	Ser	Ala	Ser	Arg	Ala	Ser	Ala	Val	Ser
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Ser	Gly	Ala	Gly	Tyr	Gln	Ser	Gly	Thr	His	Gln	Gly	Gln	Phe	Asp	His
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Gly	Ser	Gly	Ser	Leu	Ser	Pro	Ser	Lys	Lys	Ser	Pro	Val	Gly	Lys	Ser
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Pro	Pro	Ser	Thr	Gly	Ser	Thr	Tyr	Gly	Ser	Ser	Gln	Lys	Glu	Glu	Ser
			325					330						335	
Ala	Ala	Ser	Gly	Gly	Ala	Ala	Tyr	Thr	Lys	Arg	Tyr	Leu	Glu	Glu	Gln
			340					345					350		
Lys	Thr	Glu	Asn	Gly	Lys	Asp	Lys	Glu	Gln	Lys	Gln	Thr	Asn	Thr	Asp



355				360				365							
Lys	Glu	Lys	Ile	Lys	Glu	Lys	Gly	Ser	Phe	Ser	Asp	Thr	Gly	Leu	Gly
370				375				380							
Asp	Gly	Lys	Met	Lys	Ser	Asp	Ser	Phe	Ala	Pro	Lys	Thr	Asp	Ser	Glu
385				390				395				400			
Lys	Pro	Phe	Arg	Gly	Ser	Gln	Ser	Pro	Lys	Arg	Tyr	Lys	Leu	Arg	Asp
405				410				415							
Asp	Phe	Glu	Lys	Lys	Met	Ala	Asp	Phe	His	Lys	Glu	Glu	Met	Asp	Asp
420				425				430							
Gln	Asp	Lys	Asp	Lys	Ala	Lys	Gly	Arg	Lys	Glu	Ser	Glu	Phe	Asp	Asp
435				440				445							
Glu	Pro	Lys	Phe	Met	Ser	Lys	Val	Ile	Gly	Ala	Asn	Lys	Asn	Gln	Glu
450				455				460							
Glu	Glu	Lys	Ser	Gly	Lys	Trp	Glu	Gly	Leu	Val	Tyr	Ala	Pro	Pro	Gly
465				470				475				480			
Lys	Glu	Lys	Gln	Arg	Lys	Thr	Glu	Glu	Leu	Glu	Glu	Glu	Ser	Phe	Pro
485				490				495							
Glu	Arg	Ser	Lys	Lys	Glu	Asp	Arg	Gly	Lys	Arg	Ser	Glu	Gly	Gly	His
500				505				510							
Arg	Gly	Phe	Val	Pro	Glu	Lys	Asn	Phe	Arg	Val	Thr	Ala	Tyr	Lys	Ala
515				520				525							
Val	Gln	Glu	Lys	Ser	Ser	Ser	Pro	Pro	Pro	Arg	Lys	Thr	Ser	Glu	Ser
530				535				540							
Arg	Asp	Lys	Leu	Gly	Ala	Lys	Gly	Asp	Phe	Pro	Thr	Gly	Lys	Ser	Ser
545				550				555				560			
Phe	Ser	Ile	Thr	Arg	Glu	Ala	Gln	Val	Asn	Val	Arg	Met	Asp	Ser	Phe
565				570				575							
Asp	Glu	Asp	Leu	Ala	Arg	Pro	Ser	Gly	Leu	Leu	Ala	Gln	Glu	Arg	Lys
580				585				590							
Leu	Cys	Arg	Asp	Leu	Val	His	Ser	Asn	Lys	Lys	Glu	Gln	Glu	Phe	Arg
595				600				605							
Ser	Ile	Phe	Gln	His	Ile	Gln	Ser	Ala	Gln	Ser	Gln	Arg	Ser	Pro	Ser
610				615				620							
Glu	Leu	Phe	Ala	Gln	His	Ile	Val	Thr	Ile	Val	His	His	Val	Lys	Glu
625				630				635				640			
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645				650				655							
Tyr	Leu	Lys	Arg	Gly	Thr	Glu	Gln	Glu	Ala	Ala	Lys	Asn	Lys	Lys	Ser
660				665				670							
Pro	Glu	Ile	His	Arg	Arg	Ile	Asp	Ile	Ser	Pro	Ser	Thr	Phe	Arg	Lys
675				680				685							
His	Gly	Leu	Ala	His	Asp	Glu	Met	Lys	Ser	Pro	Arg	Glu	Pro	Gly	Tyr
690				695				700							
Lys	Ala	Glu	Gly	Lys	Tyr	Lys	Asp	Asp	Pro	Val	Asp	Leu	Arg	Leu	Asp
705				710				715				720			
Ile	Glu	Arg	Arg	Lys	Lys	His	Lys	Glu	Arg	Asp	Leu	Lys	Arg	Gly	Lys
725				730				735							
Ser	Arg	Glu	Ser	Val	Asp	Ser	Arg	Asp	Ser	Ser	His	Ser	Arg	Glu	Arg
740				745				750							
Ser	Ala	Glu	Lys	Thr	Glu	Lys	Thr	His	Lys	Gly	Ser	Lys	Lys	Gln	Lys
755				760				765							
Lys	His	Arg	Arg	Ala	Arg	Asp	Arg	Ser	Arg	Ser	Ser	Ser	Ser	Ser	Ser
770				775				780							
Gln	Ser	Ser	His	Ser	Tyr	Lys	Ala	Glu	Glu	Tyr	Thr	Glu	Glu	Thr</	

785                      790                      795                      800  
 Glu Arg Glu Glu Ser Thr Thr Gly Phe Asp Lys Ser Arg Leu Gly Thr  
                                  805                      810                      815  
 Lys Asp Phe Val Gly Pro Ser Glu Arg Gly Gly Gly Arg Ala Arg Gly  
                                  820                      825                      830  
 Thr Phe Gln Phe Arg Ala Arg Gly Arg Gly Trp Gly Arg Gly Asn Tyr  
                                  835                      840                      845  
 Ser Gly Asn Asn Asn Asn Ser Asn Asn Asp Phe Gln Lys Arg Asn  
                                  850                      855                      860  
 Arg Glu Glu Glu Trp Asp Pro Glu Tyr Thr Pro Lys Ser Lys Lys Tyr  
 865                      870                      875                      880  
 Tyr Leu His Asp Asp Arg Glu Gly Glu Gly Ser Asp Lys Trp Val Ser  
                                  885                      890                      895  
 Arg Gly Arg Gly Arg Gly Ala Phe Pro Arg Gly Arg Gly Arg Phe Met  
                                  900                      905                      910  
 Phe Arg Lys Ser Ser Thr Ser Pro Lys Trp Ala His Asp Lys Phe Ser  
                                  915                      920                      925  
 Gly Glu Glu Gly Glu Ile Glu Asp Asp Glu Ser Gly Thr Glu Asn Arg  
                                  930                      935                      940  
 Glu Glu Lys Asp Asn Ile Gln Pro Thr Thr Glu  
 945                      950                      955

&lt;210&gt; 3991

&lt;211&gt; 381

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3991

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 cagggtatgt attatactcc accaccacaa tgtgtgtccc gctttgtccg acctccacca  
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 381

&lt;210&gt; 3992

&lt;211&gt; 127

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3992

Xaa Tyr Gln Pro Leu Arg Met Val Pro Arg Gly Ser Gln Leu Tyr Pro  
 1                      5                      10                      15  
 Ala Gln Gln Thr Asp Val Tyr Tyr Gln Asp Pro Arg Gly Ala Ala Pro  
                                  20                      25                      30  
 Pro Phe Glu Pro Ala Pro Tyr Gln Gln Gly Met Tyr Tyr Thr Pro Pro

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      35          40          45
Pro Gln Cys Val Ser Arg Phe Val Arg Pro Pro Pro Ser Ala Pro Glu
  50          55          60
Pro Ala Pro Pro Tyr Leu Asp His Tyr Pro Pro Tyr Leu Gln Glu Arg
  65          70          75          80
Val Val Asn Ser Gln Tyr Gly Thr Gln Pro Gln Gln Tyr Pro Pro Ile
      85          90          95
Tyr Pro Ser His Tyr Asp Gly Arg Arg Val Tyr Pro Ala Pro Ser Tyr
      100          105          110
Thr Arg Glu Glu Ile Phe Arg Glu Ser Pro Ile Pro Ile Glu Ile
      115          120          125

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&lt;210&gt; 3993

&lt;211&gt; 394

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3993

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  120
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  180
atcagtcccc ttgtggcgaa tggggctcac gtcgagtaag tgtctttcgt ttattctttc
  240
cagctaaaga tgtagttgag gatgttttgt ttaaaggcag tacataagca ggcaaaagtc
  300
ctaaaaacttt gttttcaaaa ttagtaatgt aattttgcct tttagaacag ttggtgttag
  360
tgaggaaaat tgtgtggatt aaattgatct ccag
  394

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&lt;210&gt; 3994

&lt;211&gt; 72

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3994

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Xaa Ala Trp Gly Arg Thr Arg Glu Ala Ala Ala Ala Ala Gln Arg Asn
  1          5          10          15
Glu Thr Ser Ala Ala Val Ala Ser His Arg Leu Pro Ser Gly Ala Arg
      20          25          30
Thr Glu Gly Ala Asn Ile Asn Lys Pro Asp Cys Glu Gly Glu Thr Pro
      35          40          45
Ile His Lys Ala Ala Arg Ser Gly Ser Leu Glu Cys Ile Ser Ala Leu
      50          55          60
Val Ala Asn Gly Ala His Val Glu
  65          70

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&lt;210&gt; 3995

&lt;211&gt; 715

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3995

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 ggtgctgtgg ggggagcggc cgcggagact ggcaggcggg accgctcaag cagtgtgagg  
 120  
 cggacccagg ccattcggag acgccacaat gcaggcagca accccacccc tccagcctct  
 180  
 gtcattgggt cgcgcgccag cagcctgcag gaagctcagc ggggccgggc tgcctccac  
 240  
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 gccgggtgcca atgtgcatga ggcctgcacc tttgatgaca cttctgaggg tgctgtgcac  
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 600  
 ccggagtttg acctgctgga ccaggactcc ctgcacgaat cccaggagca gacactgatg  
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 715

&lt;210&gt; 3996

&lt;211&gt; 235

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3996

Arg	Gly	Pro	Ala	Ala	Asn	Gln	Pro	Gly	Trp	Arg	Gly	Glu	Leu	Gln	Glu
1				5					10					15	
Glu	Gly	Ala	Val	Gly	Gly	Ala	Ala	Ala	Glu	Thr	Gly	Arg	Arg	Asp	Arg
		20					25						30		
Ser	Ser	Ser	Val	Arg	Arg	Thr	Gln	Ala	Ile	Arg	Arg	Arg	His	Asn	Ala
		35				40					45				
Gly	Ser	Asn	Pro	Thr	Pro	Pro	Ala	Ser	Val	Met	Gly	Ser	Pro	Pro	Ser
	50				55					60					
Ser	Leu	Gln	Glu	Ala	Gln	Arg	Gly	Arg	Ala	Ala	Ser	His	Ser	Arg	Ala
65					70				75					80	
Leu	Thr	Leu	Pro	Ser	Ala	Leu	His	Phe	Ala	Ser	Ser	Leu	Leu	Leu	Thr
			85					90						95	
Arg	Ala	Gly	Ala	Asn	Val	His	Glu	Ala	Cys	Thr	Phe	Asp	Asp	Thr	Ser
		100						105					110		
Glu	Gly	Ala	Val	His	Tyr	Phe	Tyr	Asp	Glu	Ser	Gly	Val	Arg	Arg	Ser
	115					120						125			
Tyr	Thr	Phe	Gly	Leu	Ala	Gly	Gly	Gly	Tyr	Glu	Asn	Pro	Val	Gly	Gln
	130				135						140				
Gln	Gly	Glu	Gln	Thr	Ala	Asn	Gly	Ala	Trp	Asp	Arg	His	Ser	His	Ser
145					150					155				160	
Ser	Ser	Phe	His	Ser	Ala	Asp	Val	Pro	Glu	Ala	Thr	Gly	Gly	Leu	Asn
			165					170						175	
Leu	Leu	Gln	Pro	Arg	Pro	Val	Val	Leu	Gln	Gly	Met	Gln	Val	Arg	Arg

	180		185		190										
Val	Pro	Leu	Glu	Ile	Pro	Glu	Phe	Asp	Leu	Leu	Asp	Gln	Asp	Ser	Leu
	195		200		205										
His	Glu	Ser	Gln	Glu	Gln	Thr	Leu	Met	Glu	Glu	Ala	Pro	Pro	Arg	Ala
	210		215		220										
Gln	His	Ser	Tyr	Lys	Tyr	Leu	Gly	Phe	Gly	Glu					
225			230		235										

&lt;210&gt; 3997

&lt;211&gt; 7484

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3997

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&lt;210&gt; 3998

&lt;211&gt; 2220

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3998

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3173

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Glu Tyr Leu Gly Arg Arg	Ser Trp Cys Cys Asn Ser	Asp Gly Ala Leu
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Ser Glu Asp Thr His Pro	Tyr Lys Glu Glu Leu	Glu Thr Ala Leu Glu
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Gln Cys Phe Tyr Cys Leu	Tyr Ser Phe Pro Ser	Lys Lys Ser Lys Ala
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Arg Tyr Leu Glu Glu His	Ser Ala Gln Gln Val	Asp Leu Ile Trp Glu
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Phe Asp Ser Tyr Lys Thr	Ser Thr Val Ser Ala	Asp Leu Ala Asn Leu
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Lys Ala Ile Lys Phe Tyr	Met His Asp Ile Cys	Ile Cys Pro Asn Arg
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Phe Asp Ser Trp Ala Gly	Met Ala Leu Ala Arg	Ala Ser Arg Ile Gln
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His Ala Thr Pro Val Leu	Asn Cys Phe Arg Arg	Ala Leu Glu Ile Asp
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Pro Pro Glu Leu Val Gln	Gln Met Glu Gly Arg	Arg Asp Ser Met Leu
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Glu Thr Ala Lys His Cys	Phe Thr Ser Ala Ala	Arg Cys Glu Gly Asp
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Glu Lys Gln Gln Gln Pro	Pro Thr Val Tyr Leu	Leu His Tyr Arg Gln
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His Tyr His Asn Pro Pro	Glu Leu Ala Met Glu	Ala Leu Glu Val Tyr
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Phe Arg Leu His Ala Ser	Ile Leu Lys Leu Leu	Gly Lys Pro Asp Ser
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Gly Val Gly Ala Glu Val	Leu Val Asn Phe Met	Lys Glu Ala Ala Glu

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Gly Pro Phe Ala Arg Gly Glu Glu Lys Asn Thr Pro Lys Ala Ser Glu					
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Lys Glu Lys Ala Cys Leu Val Asp Glu Asp Ser His Ser Ser Ala Gly					
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Thr Leu Pro Gly Pro Gly Ala Ser Leu Pro Ser Ser Ser Gly Pro Gly					
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Lys Cys Lys Lys Pro His Gln Gln Ala Thr Pro Asp Asp Arg Ser Gln					
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Asp Ser Thr Ala Val Ala Leu Ser Asp Ser Ser Ser Thr Gln Asp Phe					
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Phe Asn Glu Pro Thr Ser Leu Leu Glu Gly Ser Arg Lys Ser Tyr Thr					
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Asp Leu Gln Gly Ala Thr Glu Glu Arg Gly Lys Asn Glu Glu Ser Leu					
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Tyr Thr Tyr Ser Lys Thr His Arg Asn Leu Gln Trp Ala Arg Asp Val					
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Pro Asp Gln Gly Lys Lys Tyr Leu Arg Asp Ala Asp Arg Gln Val Leu					
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 Tyr Met Leu Ile Lys Gln Val Asp Glu Glu Ala Ala Leu Glu Gln Ala  
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 Val Lys Phe Cys Gln Val His Leu Gly Ala Ala Ala Gln Arg Gln Ala  
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 1925                      1930                      1935  
 Asn Phe Phe Pro Val Thr Val Val Pro Thr Ala Pro Asp Pro Val Pro  
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 1970                      1975                      1980  
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 1985                      1990                      1995                      2000  
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 2005                      2010                      2015  
 Glu Leu Ala Arg Val Ala Glu Gly Thr Ser Phe Pro Pro Gln Glu Pro  
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<213> Homo sapiens

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&lt;210&gt; 4000

&lt;211&gt; 606

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens



&lt;400&gt; 4000

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 35          40          45
Glu Cys Pro Asp Glu Ser Phe Ile Gln Pro Ile Cys Glu Asn Ala Thr
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Phe Gln Arg Tyr Gln Gly Lys Ala Asp Ala Pro Val Ala Leu Val Val
 65          70          75          80
His Met Ala Pro Ala Ser Val Leu Val Asp Ser Arg Tyr Gln Gln Trp
 85          90          95
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Cys Ala Ser Val His Asn Leu Arg Ser His Lys Ile Gln Thr Gln Leu
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Lys Lys Glu Gly Pro Thr Leu Ser Val Pro Met Val Gln Gly Glu Cys
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165          170          175
Ile Ile Thr Cys Asn Pro Glu Glu Phe Ile Val Glu Ala Leu Gln Leu
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<212> DNA
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&lt;210&gt; 4002

&lt;211&gt; 417

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4002

Glu	Ser	Pro	Ala	Ser	Gln	Ala	Gly	Thr	Gln	His	Pro	Pro	Ala	Gln	Pro
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Thr	Ala	His	Ser	Gln	Ser	Ser	Pro	Glu	Phe	Lys	Gly	Ser	Leu	Ala	Ser
			20					25					30		
Leu	Ser	Asp	Ser	Leu	Gly	Val	Ser	Val	Met	Ala	Thr	Asp	Gln	Asp	Ser
		35				40						45			
Tyr	Ser	Thr	Ser	Ser	Thr	Glu	Glu	Leu	Glu	Gln	Phe	Ser	Ser	Pro	
	50					55				60					
Ser	Val	Lys	Lys	Lys	Pro	Ser	Met	Ile	Leu	Gly	Lys	Ala	Arg	His	Arg
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Leu	Ser	Phe	Ala	Ser	Phe	Ser	Ser	Met	Phe	His	Ala	Phe	Leu	Ser	Asn
				85					90				95		
Asn	Arg	Lys	Leu	Tyr	Lys	Lys	Val	Val	Glu	Leu	Ala	Gln	Asp	Lys	Gly
		100						105					110		
Ser	Tyr	Phe	Gly	Ser	Leu	Val	Gln	Asp	Tyr	Lys	Val	Tyr	Ser	Leu	Glu
		115				120						125			
Met	Met	Ala	Arg	Gln	Thr	Ser	Ser	Thr	Glu	Met	Leu	Gln	Glu	Ile	Arg
	130					135					140				
Thr	Met	Met	Thr	Gln	Leu	Lys	Ser	Tyr	Leu	Leu	Gln	Ser	Thr	Glu	Leu
145				150						155				160	
Lys	Ala	Leu	Val	Asp	Pro	Ala	Leu	His	Ser	Glu	Glu	Glu	Leu	Glu	Ala
			165					170					175		
Ile	Val	Glu	Ser	Ala	Leu	Tyr	Lys	Cys	Val	Leu	Lys	Pro	Leu	Lys	Glu
		180					185					190			
Ala	Ile	Asn	Ser	Cys	Leu	His	Gln	Ile	His	Ser	Lys	Asp	Gly	Ser	Leu
		195				200						205			
Gln	Gln	Leu	Lys	Glu	Asn	Gln	Leu	Val	Ile	Leu	Ala	Thr	Thr	Thr	Thr
	210					215					220				
Asp	Leu	Gly	Val	Thr	Thr	Ser	Val	Pro	Glu	Val	Pro	Met	Met	Glu	Lys

225                      230                      235                      240  
 Ile Leu Gln Lys Phe Thr Ser Met His Lys Ala Tyr Ser Pro Glu Lys  
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 Lys Ile Ser Ile Leu Leu Lys Thr Cys Lys Leu Ile Tyr Asp Ser Met  
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 Ala Leu Gly Asn Pro Gly Lys Pro Tyr Gly Ala Asp Asp Phe Leu Pro  
                                  275                      280                      285  
 Val Leu Met Tyr Val Leu Ala Arg Ser Asn Leu Thr Glu Met Leu Leu  
                                  290                      295                      300  
 Asn Val Glu Tyr Met Met Glu Leu Met Asp Pro Ala Leu Gln Leu Gly  
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 Glu Gly Ser Tyr Tyr Leu Thr Thr Thr Tyr Gly Ala Leu Glu His Ile  
                                  325                      330                      335  
 Lys Ser Tyr Asp Lys Ile Thr Val Thr Arg Gln Leu Ser Val Glu Val  
                                  340                      345                      350  
 Gln Asp Ser Ile His Arg Trp Glu Arg Arg Arg Thr Leu Asn Lys Ala  
                                  355                      360                      365  
 Arg Ala Ser Arg Ser Ser Val Gln Asp Phe Ile Cys Val Ser Tyr Leu  
                                  370                      375                      380  
 Glu Pro Glu Gln Gln Ala Arg Thr Leu Ala Ser Arg Ala Asp Thr Gln  
 385                                   390                      395                      400  
 Ala Gln Ala Leu Cys Ala Gln Cys Ala Glu Lys Phe Ala Val Glu Arg  
                                  405                      410                      415  
 Pro

&lt;210&gt; 4003

&lt;211&gt; 581

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4003

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 420  
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&lt;210&gt; 4004

<211> 160  
 <212> PRT  
 <213> Homo sapiens

<400> 4004  
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 Leu Ala Leu Lys Phe Thr Cys Ser Arg Ala Lys Asp Val Ile Ile Pro  
 35 40 45  
 Ala Lys Pro Pro Val Ser Phe Phe Ser Leu Arg Ser Pro Val Leu Asp  
 50 55 60  
 Leu Phe Gln Gly Gln Leu Asp Tyr Ala Glu Tyr Val Arg Arg Asp Ser  
 65 70 75 80  
 Glu Val Val Leu Leu Phe Phe Tyr Ala Pro Trp Cys Gly Gln Ser Ile  
 85 90 95  
 Ala Ala Arg Ala Glu Ile Glu Gln Ala Ala Ser Arg Leu Ser Asp Gln  
 100 105 110  
 Val Leu Phe Val Ala Ile Asn Cys Trp Trp Asn Gln Gly Lys Cys Arg  
 115 120 125  
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<210> 4005  
 <211> 666  
 <212> DNA  
 <213> Homo sapiens

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 420  
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<210> 4006

<211> 222

<212> PRT

<213> Homo sapiens

<400> 4006

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Met Met Lys Ala Ala Ile Ser Glu Thr Glu Asp Met Pro Met Phe Glu  
35 40 45  
Pro Lys Met Thr Arg Ser Lys Leu Lys Glu Val Val Glu Lys Gly Met  
50 55 60  
Val Ile Pro Thr Trp Asn Ile Ser Pro Ile Lys Lys Ala Asn Glu Ile  
65 70 75 80  
Lys Pro Pro Gln Phe Val Asp Ile His Leu Glu Glu Asp Asp Ser Ser  
85 90 95  
Asp Glu Glu Tyr Gln Pro Asp Asp Glu Glu Glu Asp Glu Thr Ala Glu  
100 105 110  
Glu Ser Leu Leu Glu Ser Asp Val Glu Ser Thr Ala Ser Ser Pro Arg  
115 120 125  
Gly Ala Lys Lys Ser Arg Leu Arg Gln Ser Ser Glu Met Thr Glu Thr  
130 135 140  
Asp Glu Glu Ser Gly Ile Leu Ser Glu Ala Glu Lys Val Thr Thr Pro  
145 150 155 160  
Ala Ile Arg His Ile Ser Ala Glu Val Val Pro Met Gly Pro Pro Pro  
165 170 175  
Pro Pro Lys Pro Lys Gln Thr Arg Asp Ser Thr Phe Met Glu Lys Leu  
180 185 190  
His Ala Val Asp Glu Glu Leu Ala Ser Ser Pro Val Cys Met Asp Ser  
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Phe Gln Pro Met Asp Asp Ser Leu Ile Ala Phe Arg Thr Arg  
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<210> 4007

<211> 2313

<212> DNA

<213> Homo sapiens

<400> 4007

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240  
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300

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<210> 4008

<211> 290

<212> PRT

<213> Homo sapiens

<400> 4008

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		20						25					30		
Ser	Glu	Ala	Ser	Lys	Glu	Asn	Arg	Asp	Ile	Glu	Ile	Ser	Thr	Glu	Glu
		35					40					45			
Glu	Lys	Asp	Thr	Gly	Asp	Leu	Lys	Asp	Ser	Ser	Leu	Leu	Lys	Thr	Lys
		50				55					60				
Arg	Lys	His	Lys	Lys	Lys	His	Lys	Glu	Arg	His	Lys	Met	Gly	Glu	Glu
65						70				75				80	
Val	Ile	Pro	Leu	Arg	Val	Leu	Ser	Lys	Ser	Glu	Trp	Met	Asp	Leu	Lys
			85						90					95	
Lys	Glu	Tyr	Leu	Ala	Leu	Gln	Lys	Ala	Ser	Met	Ala	Ser	Leu	Lys	Lys
			100					105					110		
Thr	Ile	Ser	Gln	Ile	Lys	Ser	Glu	Ser	Glu	Met	Glu	Thr	Asp	Ser	Gly
			115				120					125			
Val	Pro	Gln	Asn	Thr	Gly	Met	Lys	Asn	Glu	Lys	Thr	Ala	Asn	Arg	Glu
			130				135					140			
Glu	Cys	Arg	Thr	Gln	Glu	Lys	Val	Asn	Ala	Thr	Gly	Pro	Gln	Phe	Val
145						150				155				160	
Ser	Gly	Val	Ile	Val	Lys	Ile	Ile	Ser	Thr	Glu	Pro	Leu	Pro	Gly	Arg
			165						170					175	
Lys	Gln	Val	Arg	Asp	Thr	Leu	Ala	Ala	Ile	Ser	Glu	Val	Leu	Tyr	Val
			180					185					190		
Asp	Leu	Leu	Glu	Gly	Asp	Thr	Glu	Cys	His	Ala	Arg	Phe	Lys	Thr	Pro
			195				200					205			
Glu	Asp	Ala	Gln	Ala	Val	Ile	Asn	Ala	Tyr	Thr	Glu	Ile	Asn	Lys	Lys
			210				215					220			
His	Cys	Trp	Lys	Leu	Glu	Ile	Leu	Ser	Gly	Asp	His	Glu	Gln	Arg	Tyr
225						230				235				240	
Trp	Gln	Lys	Ile	Leu	Val	Asp	Arg	Gln	Ala	Lys	Leu	Asn	Gln	Pro	Arg
			245						250					255	
Glu	Lys	Lys	Arg	Gly	Thr	Glu	Lys	Leu	Ile	Thr	Lys	Ala	Glu	Lys	Ile



260 265 270  
 Arg Leu Ala Lys Thr Gln Gln Ala Ser Lys His Ile Arg Phe Ser Glu  
 275 280 285  
 Tyr Asp  
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<210> 4009  
 <211> 675  
 <212> DNA  
 <213> Homo sapiens

<400> 4009  
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 675

<210> 4010  
 <211> 225  
 <212> PRT  
 <213> Homo sapiens

<400> 4010  
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 20 25 30  
 Met Gln Ala Ser Val Pro Gly Pro Ser Glu Glu Pro Val Tyr Asn  
 35 40 45  
 Pro Thr Thr Ala Ala Phe Ile Cys Asp Ser Leu Val Asn Glu Lys Thr  
 50 55 60  
 Ile Gly Ser Pro Pro Asn Glu Phe Tyr Cys Ser Glu Asn Thr Ser Val  
 65 70 75 80  
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<210> 4011
<211> 1371
<212> DNA
<213> Homo sapiens
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720
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840

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 1371

&lt;210&gt; 4012

&lt;211&gt; 419

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4012

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		20						25					30		
Ser	Arg	Ser	Arg	Ala	Arg	Ala	Gly	Glu	Leu	Trp	Leu	Pro	His	Gly	Thr
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Val	Ala	Thr	Pro	Val	Phe	Met	Pro	Val	Gly	Thr	Gln	Ala	Thr	Met	Lys
	50				55					60					
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65				70					75				80		
Gly	Asn	Thr	Tyr	His	Leu	Gly	Leu	Arg	Pro	Gly	Pro	Glu	Leu	Ile	Gln
				85				90					95		
Lys	Ala	Asn	Gly	Leu	His	Gly	Phe	Met	Asn	Trp	Pro	His	Asn	Leu	Leu
		100					105					110			
Thr	Leu	Cys	Gly	Gly	Val	Ser	Leu	Asp	Ser	Gly	Gly	Phe	Gln	Met	Val
	115						120					125			
Ser	Leu	Val	Ser	Leu	Ser	Glu	Val	Thr	Glu	Glu	Gly	Val	Arg	Phe	Arg
	130					135					140				
Ser	Pro	Tyr	Asp	Gly	Asn	Glu	Thr	Leu	Leu	Ser	Pro	Glu	Lys	Ser	Val
145					150				155				160		
Gln	Ile	Gln	Asn	Ala	Leu	Gly	Ser	Asp	Ile	Ile	Met	Gln	Leu	Asp	Asp
			165					170					175		
Val	Val	Ser	Ser	Thr	Val	Thr	Gly	Pro	Arg	Val	Glu	Glu	Ala	Met	Tyr
		180					185					190			
Arg	Ser	Ile	Arg	Trp	Leu	Asp	Arg	Cys	Ile	Ala	Ala	His	Gln	Arg	Pro
	195						200					205			
Asp	Lys	Gln	Asn	Leu	Phe	Ala	Ile	Ile	Gln	Gly	Gly	Leu	Asp	Ala	Asp
	210					215					220				
Leu	Arg	Ala	Thr	Cys	Leu	Glu	Glu	Met	Thr	Lys	Arg	Asp	Val	Pro	Gly

225		230		235		240									
Phe	Ala	Ile	Gly	Gly	Leu	Ser	Gly	Gly	Glu	Ser	Lys	Ser	Gln	Phe	Trp
			245					250						255	
Arg	Met	Val	Ala	Leu	Ser	Thr	Ser	Arg	Leu	Pro	Lys	Asp	Lys	Pro	Arg
			260					265					270		
Tyr	Leu	Met	Gly	Val	Gly	Tyr	Ala	Thr	Asp	Leu	Val	Val	Cys	Val	Ala
		275					280					285			
Leu	Gly	Cys	Asp	Met	Phe	Asp	Cys	Val	Phe	Pro	Thr	Arg	Thr	Ala	Arg
	290					295					300				
Phe	Gly	Ser	Ala	Leu	Val	Pro	Thr	Gly	Asn	Leu	Gln	Leu	Arg	Lys	Lys
305				310					315					320	
Val	Phe	Glu	Lys	Asp	Phe	Gly	Pro	Ile	Asp	Pro	Glu	Cys	Thr	Cys	Pro
			325						330					335	
Thr	Cys	Gln	Lys	His	Ser	Arg	Ala	Phe	Leu	His	Ala	Leu	Leu	His	Ser
		340						345					350		
Asp	Asn	Thr	Ala	Ala	Leu	His	His	Leu	Thr	Val	His	Asn	Ile	Ala	Tyr
	355					360						365			
Gln	Leu	Gln	Leu	Met	Ser	Ala	Val	Arg	Thr	Ser	Ile	Val	Glu	Lys	Arg
	370					375					380				
Phe	Pro	Asp	Phe	Val	Arg	Asp	Phe	Met	Gly	Ala	Met	Tyr	Gly	Asp	Pro
385					390				395					400	
Thr	Leu	Cys	Pro	Thr	Trp	Ala	Thr	Asp	Ala	Leu	Ala	Ser	Val	Gly	Ile
			405					410						415	
Thr	Leu	Gly													

&lt;210&gt; 4013

&lt;211&gt; 1419

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4013

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120

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180

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240

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300

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360

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420

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480

ctgcagaaaag atggaagttg caaagattcc cccaataagc tttctcacat tggggataaa  
540

agttgctcca gtcactccag cagcaacacg ctctccagca acactccag caacagtgc  
600

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660

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 1419

&lt;210&gt; 4014

&lt;211&gt; 473

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4014

Xaa	Ile	Pro	Met	Val	Glu	Tyr	Lys	Leu	Asp	Ser	Glu	Gly	Thr	Pro	Cys
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Glu	Tyr	Lys	Thr	Pro	Phe	Arg	Arg	Asn	Thr	Thr	Trp	His	Arg	Val	Pro
		20						25					30		
Thr	Pro	Ala	Leu	Gln	Pro	Leu	Ser	Arg	Ala	Ser	Pro	Ile	Pro	Gly	Thr
		35					40					45			
Pro	Asp	Arg	Leu	Pro	Cys	Gln	Gln	Leu	Leu	Gln	Gln	Ala	Gln	Ala	Ala
	50					55				60					
Ile	Pro	Arg	Ser	Thr	Ser	Phe	Asp	Arg	Lys	Leu	Pro	Asp	Gly	Thr	Arg
65				70					75					80	
Ser	Ser	Pro	Ser	Asn	Gln	Ser	Ser	Ser	Ser	Asp	Pro	Gly	Pro	Gly	Gly
		85						90					95		
Ser	Gly	Pro	Trp	Arg	Pro	Gln	Val	Gly	Tyr	Asp	Gly	Cys	Gln	Ser	Pro
		100						105					110		
Leu	Leu	Leu	Glu	His	Gln	Gly	Ser	Gly	Pro	Leu	Glu	Cys	Asp	Gly	Ala
		115				120						125			
Arg	Glu	Arg	Glu	Asp	Thr	Met	Glu	Ala	Ser	Arg	His	Pro	Glu	Thr	Lys
	130					135					140				
Trp	His	Gly	Pro	Pro	Ser	Lys	Val	Leu	Gly	Ser	Tyr	Lys	Glu	Arg	Ala
145				150					155					160	
Leu	Gln	Lys	Asp	Gly	Ser	Cys	Lys	Asp	Ser	Pro	Asn	Lys	Leu	Ser	His

165 170 175  
 Ile Gly Asp Lys Ser Cys Ser Ser His Ser Ser Ser Asn Thr Leu Ser  
 180 185 190  
 Ser Asn Thr Ser Ser Asn Ser Asp Asp Lys His Phe Gly Ser Gly Asp  
 195 200 205  
 Leu Met Asp Pro Glu Leu Leu Gly Leu Thr Tyr Ile Lys Gly Ala Ser  
 210 215 220  
 Thr Asp Ser Gly Ile Asp Thr Ala Pro Cys Met Pro Ala Thr Ile Leu  
 225 230 235 240  
 Gly Pro Val His Leu Ala Gly Ser Arg Ser Leu Ile His Ser Arg Ala  
 245 250 255  
 Glu Gln Trp Ala Asp Ala Ala Asp Val Ser Gly Pro Asp Asp Glu Pro  
 260 265 270  
 Ala Lys Leu Tyr Ser Val His Gly Tyr Ala Ser Thr Ile Ser Ala Gly  
 275 280 285  
 Ser Ala Ala Glu Gly Ser Met Gly Asp Leu Ser Glu Ile Ser Ser His  
 290 295 300  
 Ser Ser Gly Ser His His Ser Gly Ser Pro Ser Ala His Cys Ser Lys  
 305 310 315 320  
 Ser Ser Gly Ser Leu Asp Ser Ser Lys Val Tyr Ile Val Ser His Ser  
 325 330 335  
 Ser Gly Gln Gln Val Pro Gly Ser Met Ser Lys Pro Tyr His Arg Gln  
 340 345 350  
 Gly Ala Val Asn Lys Tyr Val Ile Gly Trp Lys Lys Ser Glu Gly Ser  
 355 360 365  
 Pro Pro Pro Glu Glu Pro Glu Val Thr Glu Cys Pro Gly Met Tyr Ser  
 370 375 380  
 Glu Leu Asp Val Met Ser Thr Ala Thr Gln His Gln Thr Val Val Gly  
 385 390 395 400  
 Asp Ala Val Ala Glu Thr Gln His Val Leu Ser Lys Glu Asp Phe Leu  
 405 410 415  
 Lys Leu Met Leu Pro Asp Ser Pro Leu Val Glu Glu Gly Arg Arg Lys  
 420 425 430  
 Phe Ser Phe Tyr Gly Asn Leu Ser Pro Arg Arg Ser Leu Tyr Arg Thr  
 435 440 445  
 Leu Ser Asp Glu Ser Ile Cys Ser Asn Arg Arg Gly Ser Ser Phe Gly  
 450 455 460  
 Ser Ser Arg Ser Ser Val Leu Asp Gln  
 465 470

&lt;210&gt; 4015

&lt;211&gt; 823

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4015

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 180  
 aactcaattc caacgagcga gcagcttact gagcaggagc gcgccaagga tgcagagaaa  
 240

cccgcggagg tgccgggcca gccacgcac aggagccgcg aggactgagg gcggtatacg  
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 360  
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 420  
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 720  
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 823

&lt;210&gt; 4016

&lt;211&gt; 95

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4016

Arg	Phe	Glu	Lys	Gln	Lys	Tyr	Leu	Ser	Thr	Pro	Asp	Arg	Ile	Asp	Leu
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Ala	Glu	Ser	Leu	Gly	Leu	Ser	Gln	Leu	Gln	Val	Lys	Thr	Trp	Tyr	Gln
			20					25					30		
Asn	Arg	Arg	Met	Lys	Trp	Lys	Lys	Ile	Val	Leu	Gln	Gly	Gly	Gly	Leu
		35				40						45			
Glu	Ser	Pro	Thr	Lys	Pro	Lys	Gly	Arg	Pro	Lys	Lys	Asn	Ser	Ile	Pro
		50				55					60				
Thr	Ser	Glu	Gln	Leu	Thr	Glu	Gln	Glu	Arg	Ala	Lys	Asp	Ala	Glu	Lys
65				70				75						80	
Pro	Ala	Glu	Val	Pro	Gly	Glu	Pro	Ser	Asp	Arg	Ser	Arg	Glu	Asp	
			85					90						95	

&lt;210&gt; 4017

&lt;211&gt; 1521

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4017

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 120  
 agcacccgtcc tacagggcct gccctttggg ggcgtcccca ccgtgctggc cttggacttc  
 180  
 acgtgcttcc tcgccctgct gttcttattc tccatcctcc ggaaggtggc ctgggactat  
 240

gggcggtg ccttggtgac agatgcagac aggcctcggc ggcaggagag ggaccgagtg  
 300  
 gaacaggaat atgtggcttc agctatgcac ggggacagcc atgaccggta tgagcgtctc  
 360  
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 420  
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 1380  
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 1521

&lt;210&gt; 4018

&lt;211&gt; 480

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4018

Gln Gln Pro Glu Asp Tyr Cys Tyr Ser Ala Arg Ile Arg Ser Thr Val

1

5

10

15

Leu Gln Gly Leu Pro Phe Gly Gly Val Pro Thr Val Leu Ala Leu Asp



3195

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<210> 4019

<211> 2408

<212> DNA

<213> Homo sapiens

<400> 4019

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 180  
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 240  
 cctcctctgc cttgcaatgt caccttggag gacttctatg gggctctctc ctctcctgga  
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 2400  
 aaaaaaaaa  
 2408

&lt;210&gt; 4020

&lt;211&gt; 296

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4020

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 20 25 30  
 Leu Val Cys Gly Leu Leu Leu Val Ile Ala Leu Gly Cys Thr Cys Lys  
 35 40 45  
 Leu Tyr Ala Ile Arg Thr Gln Glu Tyr Ser Ile Phe Ala Pro Leu Ser  
 50 55 60  
 Arg Met Glu Ala Glu Ile Val Gln Gln Gln Ala Pro Pro Ser Tyr Gly

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<211> 4209
<212> DNA
<213> Homo sapiens
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540
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&lt;211&gt; 1690

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Lys Asn Leu Ser Ser Gly Thr Arg Val Val Leu Lys Ser His Tyr Gly			
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Tyr Glu Val Glu Glu Val Lys Ile Leu Gly Lys Glu Arg Tyr Leu Val			
290	295	300	
Ala His Thr Ser Glu Thr Leu Leu Leu Gly Asp Leu Asn Thr Asn Arg			
305	310	315	320
Leu Ser Glu Ile Ala Trp Gln Gly Ser Gly Gly Asn Glu Lys Tyr Phe			
325	330	335	
Phe Glu Asn Glu Asn Val Cys Met Ile Phe Asn Ala Gly Glu Leu Thr			
340	345	350	
Leu Val Glu Tyr Gly Asn Asn Asp Thr Leu Gly Ser Val Arg Thr Glu			
355	360	365	
Phe Met Asn Pro His Leu Ile Ser Val Arg Ile Asn Glu Arg Cys Gln			
370	375	380	
Arg Gly Thr Glu Asp Asn Lys Lys Leu Ala Tyr Leu Ile Asp Ile Lys			
385	390	395	400
Thr Ile Ala Ile Val Asp Leu Ile Gly Gly Tyr Asn Ile Gly Thr Val			
405	410	415	
Ser His Glu Ser Arg Val Asp Trp Leu Glu Leu Asn Glu Thr Gly His			
420	425	430	
Lys Leu Leu Phe Arg Asp Arg Lys Leu Arg Leu His Leu Tyr Asp Ile			

435					440					445						
Glu	Ser	Cys	Ser	Lys	Thr	Met	Ile	Leu	Asn	Phe	Cys	Ser	Tyr	Met	Gln	
450					455					460						
Trp	Val	Pro	Gly	Ser	Asp	Val	Leu	Val	Ala	Gln	Asn	Arg	Asn	Ser	Leu	
465					470					475					480	
Cys	Val	Trp	Tyr	Asn	Ile	Glu	Ala	Pro	Glu	Arg	Val	Thr	Met	Phe	Thr	
485					490					495						
Ile	Arg	Gly	Asp	Val	Ile	Gly	Leu	Glu	Arg	Gly	Gly	Gly	Lys	Thr	Glu	
500					505					510						
Val	Met	Val	Met	Glu	Gly	Val	Thr	Thr	Val	Ala	Tyr	Thr	Leu	Asp	Glu	
515					520					525						
Gly	Leu	Ile	Glu	Phe	Gly	Thr	Ala	Ile	Asp	Asp	Gly	Asn	Tyr	Ile	Arg	
530					535					540						
Ala	Thr	Ala	Phe	Leu	Glu	Thr	Leu	Glu	Met	Thr	Pro	Glu	Thr	Glu	Ala	
545					550					555					560	
Met	Trp	Lys	Thr	Leu	Ser	Lys	Leu	Ala	Leu	Glu	Ala	Arg	Gln	Leu	His	
565					570					575						
Ile	Ala	Glu	Arg	Cys	Phe	Ser	Ala	Leu	Gly	Gln	Val	Ala	Lys	Ala	Arg	
580					585					590						
Phe	Leu	His	Glu	Thr	Asn	Glu	Ile	Ala	Asp	Gln	Val	Ser	Arg	Glu	Tyr	
595					600					605						
Gly	Gly	Glu	Gly	Thr	Asp	Phe	Tyr	Gln	Val	Arg	Ala	Arg	Leu	Ala	Met	
610					615					620						
Leu	Glu	Lys	Asn	Tyr	Lys	Leu	Ala	Glu	Met	Ile	Phe	Leu	Glu	Gln	Asn	
625					630					635					640	
Ala	Val	Glu	Glu	Ala	Met	Gly	Met	Tyr	Gln	Glu	Leu	His	Arg	Trp	Asp	
645					650					655						
Glu	Cys	Ile	Ala	Val	Ala	Glu	Ala	Lys	Gly	His	Pro	Ala	Leu	Glu	Lys	
660					665					670						
Leu	Arg	Arg	Ser	Tyr	Tyr	Gln	Trp	Leu	Met	Asp	Thr	Gln	Gln	Glu	Glu	
675					680					685						
Arg	Ala	Gly	Glu	Leu	Gln	Glu	Ser	Gln	Gly	Asp	Gly	Leu	Ala	Ala	Ile	
690					695					700						
Ser	Leu	Tyr	Leu	Lys	Ala	Gly	Leu	Pro	Ala	Lys	Ala	Ala	Arg	Leu	Val	
705					710					715					720	
Leu	Thr	Arg	Glu	Glu	Leu	Leu	Ala	Asn	Thr	Glu	Leu	Val	Glu	His	Ile	
725					730					735						
Thr	Ala	Ala	Leu	Ile	Lys	Gly	Glu	Leu	Tyr	Glu	Arg	Ala	Gly	Asp	Leu	
740					745					750						
Phe	Glu	Lys	Ile	His	Asn	Pro	Gln	Lys	Ala	Leu	Glu	Cys	Tyr	Arg	Lys	
755					760					765						
Gly	Asn	Ala	Phe	Met	Lys	Ala	Val	Glu	Leu	Ala	Arg	Leu	Ala	Phe	Pro	
770					775					780						
Val	Glu	Val	Val	Lys	Leu	Glu	Glu	Ala	Trp	Gly	Asp	His	Leu	Val	Gln	
785					790					795					800	
Gln	Lys	Gln	Leu	Asp	Ala	Ala	Ile	Asn	His	Tyr	Ile	Glu	Ala	Arg	Cys	
805					810					815						
Ser	Ile	Lys	Ala	Ile	Glu	Ala	Ala	Leu	Gly	Ala	Arg	Gln	Trp	Lys	Lys	
820					825					830						
Ala	Ile	Tyr	Ile	Leu	Asp	Leu	Gln	Asp	Arg	Asn	Thr	Ala	Ser	Lys	Tyr	
835					840					845						
Tyr	Pro	Leu	Val	Ala	Gln	His	Tyr	Ala	Ser	Leu	Gln	Glu	Tyr	Glu	Ile	
850					855					860						
Ala	Glu	Glu	Leu	Tyr	Thr	Lys	Gly	Asp	Arg	Thr	Lys	Asp	Ala	Ile	Asp	

865                      870                      875                      880  
 Met Tyr Thr Gln Ala Gly Arg Trp Glu Gln Ala His Lys Leu Ala Met  
                                  885                      890                      895  
 Lys Cys Met Arg Pro Glu Asp Val Ser Val Leu Tyr Ile Thr Gln Ala  
                                  900                      905                      910  
 Gln Glu Met Glu Lys Gln Gly Lys Tyr Arg Glu Ala Glu Arg Leu Tyr  
                                  915                      920                      925  
 Val Thr Val Gln Glu Pro Asp Leu Ala Ile Thr Met Tyr Lys Lys His  
                                  930                      935                      940  
 Lys Leu Tyr Asp Asp Met Ile Arg Leu Val Gly Lys His His Pro Asp  
 945                      950                      955                      960  
 Leu Leu Ser Asp Thr His Leu His Leu Gly Lys Glu Leu Glu Ala Glu  
                                  965                      970                      975  
 Gly Arg Leu Gln Glu Ala Glu Tyr His Tyr Leu Glu Ala Gln Glu Trp  
                                  980                      985                      990  
 Lys Ala Thr Val Asn Met Tyr Arg Ala Ser Gly Leu Trp Glu Glu Ala  
                                  995                      1000                      1005  
 Tyr Arg Val Ala Arg Thr Gln Gly Gly Ala Asn Ala His Lys His Val  
 1010                      1015                      1020  
 Ala Tyr Leu Trp Ala Lys Ser Leu Gly Gly Glu Ala Ala Val Arg Leu  
 1025                      1030                      1035                      1040  
 Leu Asn Lys Leu Gly Leu Leu Glu Ala Ala Val Asp His Ala Ala Asp  
                                  1045                      1050                      1055  
 Asn Cys Ser Phe Glu Phe Ala Phe Glu Leu Ser Arg Leu Ala Leu Lys  
                                  1060                      1065                      1070  
 His Lys Thr Pro Glu Val His Leu Lys Tyr Ala Met Phe Leu Glu Asp  
                                  1075                      1080                      1085  
 Glu Gly Lys Phe Glu Glu Ala Glu Ala Glu Phe Ile Arg Ala Gly Lys  
                                  1090                      1095                      1100  
 Pro Lys Glu Ala Val Leu Met Phe Val His Asn Gln Asp Trp Glu Ala  
 1105                      1110                      1115                      1120  
 Ala Gln Arg Val Ala Glu Ala His Asp Pro Asp Ser Val Ala Glu Val  
                                  1125                      1130                      1135  
 Leu Val Gly Gln Ala Arg Gly Ala Leu Glu Glu Lys Asp Phe Gln Lys  
                                  1140                      1145                      1150  
 Ala Glu Gly Leu Leu Leu Arg Ala Gln Arg Pro Gly Leu Ala Leu Asn  
                                  1155                      1160                      1165  
 Tyr Tyr Lys Glu Ala Gly Leu Trp Ser Asp Ala Leu Arg Ile Cys Lys  
                                  1170                      1175                      1180  
 Asp Tyr Val Pro Ser Gln Leu Glu Ala Leu Gln Glu Glu Tyr Glu Arg  
 1185                      1190                      1195                      1200  
 Glu Ala Thr Lys Lys Gly Ala Arg Gly Val Glu Gly Phe Val Glu Gln  
                                  1205                      1210                      1215  
 Ala Arg His Trp Glu Gln Ala Gly Glu Tyr Ser Arg Ala Val Asp Cys  
                                  1220                      1225                      1230  
 Tyr Leu Lys Val Arg Asp Ser Gly Asn Ser Gly Leu Ala Glu Lys Cys  
                                  1235                      1240                      1245  
 Trp Met Lys Ala Ala Glu Leu Ser Ile Lys Phe Leu Pro Pro Gln Arg  
                                  1250                      1255                      1260  
 Asn Met Glu Val Val Leu Ala Val Gly Pro Gln Leu Ile Gly Ile Gly  
 1265                      1270                      1275                      1280  
 Lys His Ser Ala Ala Ala Glu Leu Tyr Leu Asn Leu Asp Leu Val Lys  
                                  1285                      1290                      1295  
 Glu Ala Ile Asp Ala Phe Ile Glu Gly Glu Glu Trp Asn Lys Ala Lys

1300 1305 1310  
 Arg Val Ala Lys Glu Leu Asp Pro Arg Tyr Glu Asp Tyr Val Asp Gln  
 1315 1320 1325  
 His Tyr Lys Glu Phe Leu Lys Asn Gln Gly Lys Val Asp Ser Leu Val  
 1330 1335 1340  
 Gly Val Asp Val Ile Ala Ala Leu Asp Leu Tyr Val Glu Gln Gly Gln  
 1345 1350 1355 1360  
 Trp Asp Lys Cys Ile Glu Thr Ala Thr Lys Gln Asn Tyr Lys Ile Leu  
 1365 1370 1375  
 His Lys Tyr Val Ala Leu Tyr Ala Thr His Leu Ile Arg Glu Gly Ser  
 1380 1385 1390  
 Ser Ala Gln Ala Leu Ala Leu Tyr Val Gln His Gly Ala Pro Ala Asn  
 1395 1400 1405  
 Pro Gln Asn Phe Asn Ile Tyr Lys Arg Ile Phe Thr Asp Met Val Ser  
 1410 1415 1420  
 Ser Pro Gly Thr Asn Cys Ala Glu Ala Tyr His Ser Trp Ala Asp Leu  
 1425 1430 1435 1440  
 Arg Asp Val Leu Phe Asn Leu Ala Val Leu Ser Pro Ser Ser Ser Val  
 1445 1450 1455  
 Lys Thr Trp Lys Ser Ser Glu Ala Asn Ser Pro Ala His Glu Glu Phe  
 1460 1465 1470  
 Lys Thr Met Leu Leu Ile Ala His Tyr Tyr Ala Thr Arg Ser Ala Ala  
 1475 1480 1485  
 Gln Ser Val Lys Gln Leu Glu Thr Val Ala Ala Arg Leu Ser Val Ser  
 1490 1495 1500  
 Leu Leu Arg His Thr Gln Leu Leu Pro Val Asp Lys Ala Phe Tyr Glu  
 1505 1510 1515 1520  
 Ala Gly Ile Ala Ala Lys Ala Val Gly Trp Asp Asn Met Ala Phe Ile  
 1525 1530 1535  
 Phe Leu Asn Arg Phe Leu Asp Leu Thr Asp Ala Ile Glu Glu Gly Thr  
 1540 1545 1550  
 Leu Asp Gly Leu Asp His Ser Asp Phe Gln Asp Thr Asp Ile Pro Phe  
 1555 1560 1565  
 Glu Val Pro Leu Pro Ala Lys Gln His Val Pro Glu Ala Glu Arg Glu  
 1570 1575 1580  
 Glu Val Arg Asp Trp Val Leu Thr Val Ser Met Asp Gln Arg Leu Glu  
 1585 1590 1595 1600  
 Gln Val Leu Pro Arg Asp Glu Arg Gly Ala Tyr Glu Ala Ser Leu Val  
 1605 1610 1615  
 Ala Ala Ser Thr Gly Val Arg Ala Leu Pro Cys Leu Ile Thr Gly Tyr  
 1620 1625 1630  
 Pro Ile Leu Arg Asn Lys Ile Glu Phe Lys Arg Pro Gly Lys Ala Ala  
 1635 1640 1645  
 Asn Lys Asp Asn Trp Asn Lys Phe Leu Met Ala Ile Lys Thr Ser His  
 1650 1655 1660  
 Ser Pro Val Cys Gln Asp Val Leu Lys Phe Ile Ser Gln Trp Cys Gly  
 1665 1670 1675 1680  
 Gly Leu Pro Ser Thr Ser Phe Ser Phe Gln  
 1685 1690

&lt;210&gt; 4025

&lt;211&gt; 908

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens



&lt;400&gt; 4025

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 gatccctcat cccttagact gcatttgaga attcacactg gagaaaaacc ctatgaatgt  
 120  
 aaccagtgtt ttcacgtttt ccgcaccagt tgtaacctta aaagccacaa gaggattcac  
 180  
 acgggggaga atcaccatga atgtaatcag tgtggaaaag ctttcagcac aaggtcctct  
 240  
 ctactgggc acaattgcat tcatacaggg gagaaacctt atgaatgtaa ggaatgtggg  
 300  
 aaaaccttta tgtataattc atcccttatt caacatctga gaactcatac tggagagaaa  
 360  
 ccctatgaat gtaaggagtg tgggaaagcc tttaggcaac attcacacct tgtcacacac  
 420  
 cagaaaatcc atactggaga gaagccctat cagtgcactg aatgtgggaa agccttcagg  
 480  
 cggcggtcac tccttattca acatcggaga attcatagtg gtgagaagcc ctatgaatgt  
 540  
 aaggaatgtg ggaagctctt catttggegc acagcttcc tcaaaccatca gagcctgcat  
 600  
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 660  
 gagnacgaga aaattcacca agaagagaaa gcttattggt gtaatcagtg tggtagggct  
 720  
 ttccagggca gtcagacct catcggacat caggtaactc atacaggaga gaaaccatat  
 780  
 gaatgtaaag aatgtggana aactttcaat cagagctcag accttctgag acatcataga  
 840  
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 900  
 tcagatct  
 908

&lt;210&gt; 4026

&lt;211&gt; 302

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4026

Leu	Arg	Thr	His	Thr	Gly	Xaa	Lys	Pro	Tyr	Glu	Cys	Asn	His	Cys	Gly
1				5					10					15	
Lys	Ala	Phe	Ser	Asp	Pro	Ser	Ser	Leu	Arg	Leu	His	Leu	Arg	Ile	His
			20					25					30		
Thr	Gly	Glu	Lys	Pro	Tyr	Glu	Cys	Asn	Gln	Cys	Phe	His	Val	Phe	Arg
			35					40					45		
Thr	Ser	Cys	Asn	Leu	Lys	Ser	His	Lys	Arg	Ile	His	Thr	Gly	Glu	Asn
			50					55					60		
His	His	Glu	Cys	Asn	Gln	Cys	Gly	Lys	Ala	Phe	Ser	Thr	Arg	Ser	Ser
					70					75					80
Leu	Thr	Gly	His	Asn	Cys	Ile	His	Thr	Gly	Glu	Lys	Pro	Tyr	Glu	Cys
				85						90					95
Lys	Glu	Cys	Gly	Lys	Thr	Phe	Met	Tyr	Asn	Ser	Ser	Leu	Ile	Gln	His

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<210> 4027
<211> 941
<212> DNA
<213> Homo sapiens
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<400> 4027
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120
ggattgattc agatgggatg tgttttccag agcacagaag tgaaacacgt gaccaaggta
180
gaatggatat tttcaggacg gcgcgcaaag gaggagattg tatttcgtta ctaccacaaa
240
ctcaggatgt ctgcggagta ctcccagagc tggggccact tccagaatcg tgtgaacctg
300
gtgggggaca ttttccgcaa tgacgggttc atcatgttc aaggagtgag ggagtcagat
360
ggaggaaact acacctgcag tatccaccta gggaacctgg tgttcaagaa aaccatttgt
420
ctgcatgtca gcccggaaga gcctcgaaca ctggtgacct cggcagccct gaggcctctg
480
gtcttgggtg gtaatcagtt ggtgatcatt gtgggaattg tctgtgccac aatcctgctg
540
ctccctgttc tgatattgat cgtgaagaag acctgtggaa ataagagttc agtgaattct
600
acagtcttgg tgaagaacac gaagaagact aatccagaga tgaagaaaa accctgccat
660

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tttgaaagat gtgaagggga ggtgaacaca cgcttcagcc taaaacacta agtagatgca  
 720  
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 780  
 caggccagtg cttggcacag agcagggact caggaagcct ttgtcactaa agtaagagcc  
 840  
 tctgaggagt acagtgcatt gggtcggctg ggacaccccc aggcagcaga tcctgtatt  
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 941

<210> 4028

<211> 236

<212> PRT

<213> Homo sapiens

<400> 4028

Ala	Arg	Gln	Gly	Thr	Tyr	Ile	Cys	Glu	Ile	Arg	Leu	Lys	Gly	Glu	Ser
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Gln	Val	Phe	Lys	Lys	Ala	Val	Val	Leu	His	Val	Leu	Pro	Glu	Glu	Pro
		20						25					30		
Lys	Glu	Leu	Met	Val	His	Val	Gly	Gly	Leu	Ile	Gln	Met	Gly	Cys	Val
		35					40					45			
Phe	Gln	Ser	Thr	Glu	Val	Lys	His	Val	Thr	Lys	Val	Glu	Trp	Ile	Phe
	50					55				60					
Ser	Gly	Arg	Arg	Ala	Lys	Glu	Glu	Ile	Val	Phe	Arg	Tyr	Tyr	His	Lys
65				70					75					80	
Leu	Arg	Met	Ser	Ala	Glu	Tyr	Ser	Gln	Ser	Trp	Gly	His	Phe	Gln	Asn
			85					90						95	
Arg	Val	Asn	Leu	Val	Gly	Asp	Ile	Phe	Arg	Asn	Asp	Gly	Ser	Ile	Met
		100						105					110		
Leu	Gln	Gly	Val	Arg	Glu	Ser	Asp	Gly	Gly	Asn	Tyr	Thr	Cys	Ser	Ile
	115						120					125			
His	Leu	Gly	Asn	Leu	Val	Phe	Lys	Lys	Thr	Ile	Val	Leu	His	Val	Ser
	130						135					140			
Pro	Glu	Glu	Pro	Arg	Thr	Leu	Val	Thr	Pro	Ala	Ala	Leu	Arg	Pro	Leu
145				150						155				160	
Val	Leu	Gly	Gly	Asn	Gln	Leu	Val	Ile	Ile	Val	Gly	Ile	Val	Cys	Ala
			165					170						175	
Thr	Ile	Leu	Leu	Leu	Pro	Val	Leu	Ile	Leu	Ile	Val	Lys	Lys	Thr	Cys
		180						185					190		
Gly	Asn	Lys	Ser	Ser	Val	Asn	Ser	Thr	Val	Leu	Val	Lys	Asn	Thr	Lys
	195						200					205			
Lys	Thr	Asn	Pro	Glu	Met	Lys	Glu	Lys	Pro	Cys	His	Phe	Glu	Arg	Cys
	210					215					220				
Glu	Gly	Glu	Val	Asn	Thr	Arg	Phe	Ser	Leu	Lys	His				
225				230						235					

<210> 4029

<211> 909

<212> DNA

<213> Homo sapiens

<400> 4029

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 120  
 ctacatgctg ctgctggtgc tgccgtgcgt ggcgctcagc gaggtcagca tgcagggcga  
 180  
 gcacatagcg ccgcagaaga tgatgctgta cccggtgctc agtctcgcca ccgtcaatgt  
 240  
 ggtgggcccgt gctggcgcg cccgccaaca tggcgctggt ccgggacagc cgtgtctcgg  
 300  
 ccattcttctg cggcaaaaac gtggtggcgc tcgccaccaa ggctgcacc tnttcctgga  
 360  
 gtaccgcccgc caggtgcgcy acttcccnng ccgcctgcgc 'tatcactgga gctgcagccg  
 420  
 ccacccccgc agcgcaactc ggtgccgccg ccgcgcgcgc cgctgcacgg cccgcctggg  
 480  
 ncgccccac atgtcctcgc ccacgcgtga cccctggac acgtgacagg gcccgcgcgg  
 540  
 ccccgacac gccctgggg cgagagaca ccgggttggc ttggggcgcg cgtttgcat  
 600  
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 660  
 ccgcggccg cttcttcac tcaggaatct ctcgaccgc ggatcctcag ccccgctcc  
 720  
 accagccccgc ccagcgctg gggctctgtt gggaggcctg ggccggagca gagcagaggt  
 780  
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 840  
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 900  
 aaagactcg  
 909

&lt;210&gt; 4030

&lt;211&gt; 169

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4030

Arg Pro Pro Val Leu Gly Gly Ala Gly Pro Ala Gly Pro Ala Gly His  
 1 5 10 15  
 Ala Gly Gln Pro Val Gly Ala Ala Ala Leu Arg Ala Ala Ala Val Gly  
 20 25 30  
 Arg Gly Pro His Leu Leu Leu Leu His Ala Ala Ala Gly Ala Ala  
 35 40 45  
 Val Arg Gly Ala Gln Arg Gly Gln His Ala Gly Arg Ala His Ser Ala  
 50 55 60  
 Ala Glu Asp Asp Ala Val Pro Gly Ala Gln Ser Arg His Arg Gln Cys  
 65 70 75 80  
 Gly Gly Pro Cys Trp Arg Ala Pro Pro Thr Trp Arg Cys Ser Gly Thr  
 85 90 95  
 Ala Val Ser Arg Pro Ser Ser Ser Ala Lys Thr Trp Trp Arg Ser Pro  
 100 105 110  
 Pro Arg Pro Ala Pro Xaa Pro Gly Val Pro Pro Pro Gly Ala Arg Leu

	115		120		125	
Pro	Xaa	Pro	Pro	Ala	Leu	Ser
	130		135		140	
Arg	Asn	Ser	Val	Pro	Pro	Pro
145			150		155	
Xaa	Pro	Pro	His	Val	Leu	Ala
			165			

&lt;210&gt; 4031

&lt;211&gt; 1406

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4031

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120
gagtttaaaa aggaggagat gaggaagcta caaaaggaac gtaaagtttt tgaaaagtat
180
actacagctg caagaacttt tccagataaa aaggaacgtg aagaaatata gactttaaaa
240
cagcaaatag cagattttacg ggaagatttg aaaagaaagg agaccaaatg gtcaagtaca
300
cacagccgtc tcagaagcca gatacaaatg ttagtcagag agaacacaga cctccgggaa
360
gaaataaaag tgatggaaag attccgactg gatgcctgga agagagcaga agccatagag
420
agcagcctcg aggtggagaa gaaggacaag cttgcgaaca catctgttcg atttcaaaac
480
agtcagattt cttcaggaac ccaggtagaa aaatacaaga aaaattatct tccaatgcaa
540
ggcaatccac ctccaagatc caagtctgca cctcctcgtg atttaggcaa tttggataag
600
ggacaggctg cctctcccag ggagccactt gaaccactga acttcccaga tcttgaatat
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aaagaggagg aggaagacca agacatacag ggagaaatca gtcacctga tggaaagggtg
720
gaaaaggttt ataagaatgg gtgccgtgtt atactgtttc ccaatggaac tcgaaaggaa
780
gtgagtgcag atgggaagac catcactgtc actttcttta atggtgacgt gaagcaggtc
840
atgccagacc aaagagtgat ctactactat gcagctgccc agaccactca cagacatac
900
ccggaggggac tggaagtctt acattttctca agtggacaaa tagaaaaaca ttaccagat
960
ggaagaaaag aaatcacgtt tctgaccag actgttaaaa acttatttcc tgatggacaa
1020
gaagaaagca ttttcccaga tggatcaatt gtcagagtac aacgtgatgg caacaaactc
1080
atagagttta ataatggcca aagagaacta catactgccc agttcaagag acgggaatac
1140
ccagatggca ctgttaaaac cgtatatgca aacggtcatc aagaaacgaa gtacagatcc
1200

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ggtcggataa gagttaagga caaggagggt aatgtgctaa tggacacgga gctgtgacga  
 1260  
 tcctcatgtg atcatgaagt aacagtaact gactttttat gttaaaaaat gtacatttac  
 1320  
 tgtggattct gtttaattta ttgtgtatgt gtggggaaaa gattggattc taaaataaaa  
 1380  
 gtttaccctg tggcaaaaaa aaaaaa  
 1406

<210> 4032

<211> 418

<212> PRT

<213> Homo sapiens

<400> 4032

Xaa	Ala	Glu	Asn	Ala	Ser	Leu	Ala	Lys	Leu	Arg	Ile	Glu	Arg	Glu	Ser
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Ala	Lys	Glu	Leu	Ala	Arg	Ile	Glu	Glu	Phe	Lys	Lys	Glu	Glu	Met	Arg
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Lys	Leu	Gln	Lys	Glu	Arg	Lys	Val	Phe	Glu	Lys	Tyr	Thr	Thr	Ala	Ala
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Arg	Thr	Phe	Pro	Asp	Lys	Lys	Glu	Arg	Glu	Glu	Ile	Gln	Thr	Leu	Lys
65					70					75				80	
Gln	Gln	Ile	Ala	Asp	Leu	Arg	Glu	Asp	Leu	Lys	Arg	Lys	Glu	Thr	Lys
			85						90					95	
Trp	Ser	Ser	Thr	His	Ser	Arg	Leu	Arg	Ser	Gln	Ile	Gln	Met	Leu	Val
	100							105					110		
Arg	Glu	Asn	Thr	Asp	Leu	Arg	Glu	Glu	Ile	Lys	Val	Met	Glu	Arg	Phe
	115						120					125			
Arg	Leu	Asp	Ala	Trp	Lys	Arg	Ala	Glu	Ala	Ile	Glu	Ser	Ser	Leu	Glu
	130				135						140				
Val	Glu	Lys	Lys	Asp	Lys	Leu	Ala	Asn	Thr	Ser	Val	Arg	Phe	Gln	Asn
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			165						170					175	
Leu	Pro	Met	Gln	Gly	Asn	Pro	Pro	Arg	Arg	Ser	Lys	Ser	Ala	Pro	Pro
		180						185					190		
Arg	Asp	Leu	Gly	Asn	Leu	Asp	Lys	Gly	Gln	Ala	Ala	Ser	Pro	Arg	Glu
	195						200					205			
Pro	Leu	Glu	Pro	Leu	Asn	Phe	Pro	Asp	Pro	Glu	Tyr	Lys	Glu	Glu	Glu
	210					215					220				
Glu	Asp	Gln	Asp	Ile	Gln	Gly	Glu	Ile	Ser	His	Pro	Asp	Gly	Lys	Val
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Glu	Lys	Val	Tyr	Lys	Asn	Gly	Cys	Arg	Val	Ile	Leu	Phe	Pro	Asn	Gly
			245					250						255	
Thr	Arg	Lys	Glu	Val	Ser	Ala	Asp	Gly	Lys	Thr	Ile	Thr	Val	Thr	Phe
		260						265					270		
Phe	Asn	Gly	Asp	Val	Lys	Gln	Val	Met	Pro	Asp	Gln	Arg	Val	Ile	Tyr
	275						280					285			
Tyr	Tyr	Ala	Ala	Ala	Gln	Thr	His	Thr	Thr	Tyr	Pro	Glu	Gly	Leu	
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<211> 487
<212> DNA
<213> Homo sapiens
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180  
gtcctctctg ggaagcagct gaataatgaa cactgggatt ttccaggct ggcttctcac  
240  
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300  
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360  
cagctctgca ccagttggac gccttccaag aaaaactcag gctccggggg ctgcttgtca  
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<210> 4034
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<213> Homo sapiens
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      20             25             30
Thr Ser Thr Ala Gly Pro Gln Trp Leu Pro Phe Ser Pro Thr Arg Ala
      35             40             45
Leu Gly Gln Ala Ser Ser Ala Pro Val Gly Arg Leu Pro Arg Lys Thr

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 <211> 343  
 <212> DNA  
 <213> Homo sapiens

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 180  
 tataaacact cagaacctca tagcagtgtt caggaatcct atgtgagggg caaacattca  
 240  
 gaccacagca ggagcattct agaatcctat ttgaggaaca aacattcaga caatcgtagc  
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 343

<210> 4036  
 <211> 114  
 <212> PRT  
 <213> Homo sapiens

<400> 4036  
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 Asp Asn Pro Ser Asn Val Leu Glu Ser Tyr Val Arg Asp Lys His Ser  
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 Asp Pro Ser Ser Asn Val Leu Glu Ser Tyr Gly Arg Asp Lys Leu Ser  
 35 40 45  
 Glu Asn Ser Lys Ser Ile Leu Glu Ser Tyr Leu Arg Tyr Lys His Ser  
 50 55 60  
 Glu Pro His Ser Ser Val Gln Glu Ser Tyr Val Arg Asp Lys His Ser  
 65 70 75 80  
 Asp His Ser Arg Ser Ile Leu Glu Ser Tyr Leu Arg Asn Lys His Ser  
 85 90 95  
 Asp Asn Arg Ser Ser Val Leu Glu Ser Phe Phe Phe Leu Lys Leu Ser  
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 Ile Ser

<210> 4037  
 <211> 741  
 <212> DNA  
 <213> Homo sapiens

<400> 4037



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&lt;210&gt; 4038

&lt;211&gt; 134

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4038

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			20					25					30		
Leu	Arg	Pro	Cys	Ile	Gln	Leu	Ser	Ser	Lys	Asn	Glu	Ala	Ser	Gly	Met
			35				40					45			
Val	Ala	Pro	Ala	Val	Gln	Glu	Lys	Lys	Val	Lys	Lys	Arg	Val	Ser	Phe
	50				55					60					
Ala	Asp	Asn	Gln	Gly	Leu	Ala	Leu	Thr	Met	Val	Lys	Val	Phe	Ser	Glu
65				70					75					80	
Phe	Asp	Asp	Pro	Leu	Asp	Met	Pro	Phe	Asn	Ile	Thr	Glu	Leu	Leu	Asp
			85					90					95		
Asn	Ile	Val	Ser	Leu	Thr	Thr	Ala	Glu	Ser	Glu	Ser	Phe	Val	Leu	Asp
			100				105					110			
Phe	Ser	Gln	Pro	Ser	Ala	Asp	Tyr	Leu	Asp	Phe	Arg	Asn	Arg	Leu	Gln
	115					120						125			
Ala	Asp	His	Val	Cys	Leu										
	130														

&lt;210&gt; 4039

&lt;211&gt; 1503

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4039

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<212> PRT  
<213> Homo sapiens

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35 40 45  
Ala Phe Pro Pro Leu Gly Pro Ala Pro Leu Ala Ala Pro Ala Arg Ser  
50 55 60  
Cys Asp Glu Ser Gly Pro Arg Gln Pro Asp Gly Arg Gly Gly Pro Ser  
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Trp Pro Thr Ala Ala Arg Arg Trp Ser Glu Pro Cys Ala Ala Ala Pro  
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Arg Arg Pro Trp  
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<210> 4041  
<211> 573  
<212> DNA  
<213> Homo sapiens

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<210> 4042  
<211> 191  
<212> PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4042

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 20 25 30  
 Asp His Arg Gln Glu Leu Ile Glu Cys Val Ala Asn Ser Asp Glu Gln  
 35 40 45  
 Leu Gly Glu Met Phe Leu Glu Glu Lys Ile Pro Ser Ile Ser Asp Leu  
 50 55 60  
 Lys Leu Ala Ile Arg Arg Ala Thr Leu Lys Arg Ser Phe Thr Pro Val  
 65 70 75 80  
 Phe Leu Gly Ser Ala Leu Lys Asn Lys Gly Val Gln Pro Leu Leu Asp  
 85 90 95  
 Ala Val Leu Glu Tyr Leu Pro Asn Pro Ser Glu Val Gln Asn Tyr Ala  
 100 105 110  
 Ile Leu Asn Lys Glu Asp Asp Ser Lys Glu Lys Thr Lys Ile Leu Met  
 115 120 125  
 Asn Ser Ser Arg Asp Asn Ser His Pro Phe Val Gly Leu Ala Phe Lys  
 130 135 140  
 Leu Glu Val Gly Arg Phe Gly Gln Leu Thr Tyr Val Arg Ser Tyr Gln  
 145 150 155 160  
 Gly Glu Leu Lys Lys Gly Asp Thr Ile Tyr Asn Thr Arg Thr Arg Lys  
 165 170 175  
 Lys Val Arg Leu Gln Arg Leu Ala Arg Met His Ala Asp Met Met  
 180 185 190

&lt;210&gt; 4043

&lt;211&gt; 744

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4043

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 180  
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 600

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<210> 4044  
 <211> 219  
 <212> PRT  
 <213> Homo sapiens

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 35 40 45  
 Lys Glu Glu Leu Val Lys Lys Arg Ile Glu Leu Lys His Asp Lys Lys  
 50 55 60  
 Ala Arg Ala Met Ala Lys Arg Thr Lys Asp Asn Phe His Gly Tyr Asn  
 65 70 75 80  
 Gly Ile Pro Ile Glu Lys Ser Lys Lys Arg Gln Ala Thr Glu Ser  
 85 90 95  
 His Thr Ser Gln Gly Thr Asp Arg Glu Tyr Glu Met Glu Glu Glu Asn  
 100 105 110  
 Glu Phe Leu Glu Tyr Asn His Ala Glu Ser Glu Gln Glu Tyr Glu Glu  
 115 120 125  
 Glu Gln Glu Pro Pro Lys Val Glu Ser Lys Pro Lys Val Ser Leu Lys  
 130 135 140  
 Gly Ala Pro Pro Pro Met Asn Phe Thr Asp Leu Leu Arg Leu Ala Glu  
 145 150 155 160  
 Lys Lys Gln Phe Glu Pro Val Glu Ile Lys Val Val Lys Lys Ser Glu  
 165 170 175  
 Glu Arg Pro Met Thr Ala Glu Glu Leu Arg Glu Arg Glu Phe Leu Glu  
 180 185 190  
 Arg Lys His Arg Arg Lys Lys Leu Glu Thr Asp Gly Lys Leu Pro Pro  
 195 200 205  
 Thr Val Ser Lys Lys Ala Pro Leu Gly Arg Lys  
 210 215

<210> 4045  
 <211> 2217  
 <212> DNA  
 <213> Homo sapiens

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<210> 4046

<211> 437

<212> PRT

<213> Homo sapiens

<400> 4046

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			20					25					30		
His	Leu	Gln	Asn	Leu	Glu	Asn	Ser	Ala	Phe	Thr	Ala	Asp	Arg	His	Lys
	35					40						45			
Lys	Arg	Lys	Leu	Leu	Glu	Asn	Ser	Thr	Leu	Asn	Ser	Lys	Leu	Leu	Lys
	50					55					60				
Val	Asn	Gly	Ser	Thr	Thr	Ala	Ile	Cys	Ala	Thr	Gly	Leu	Arg	Asn	Leu
65					70					75				80	
Gly	Asn	Thr	Cys	Phe	Met	Asn	Ala	Ile	Leu	Gln	Ser	Leu	Ser	Asn	Ile
				85					90					95	
Glu	Gln	Phe	Cys	Tyr	Phe	Lys	Glu	Leu	Pro	Ala	Val	Glu	Leu	Arg	
			100				105					110			
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Phe	Arg	Ala	Val	Ser	Thr	Val	Phe	Pro	Ala	Gln	Gln	Phe	Cys	Arg	Arg
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Ile	Leu	Leu	Cys	Leu	Gln	Val	Xaa	Lys	Cys	Cys	Ile	Asn	Gly	Ala	Ser
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Cys	Leu	Ile	Cys	Gly	Thr	Glu	Ser	Arg	Lys	Phe	Asp	Pro	Phe	Leu	Asp
			245					250						255	
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&lt;210&gt; 4047

&lt;211&gt; 809

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4047

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<211> 118

<212> PRT

<213> Homo sapiens

<400> 4048

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			20					25					30		
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Lys	Val	Tyr	Val	Gln	Leu	Trp	Arg	Arg	Leu	Lys	Ala	Tyr	Asn	Arg	Val
		50				55					60				
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<211> 1211

<212> DNA

<213> Homo sapiens

<400> 4049

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&lt;210&gt; 4050

&lt;211&gt; 403

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4050

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	260	265
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	325	330
Pro Ser Leu Glu Gly Arg Ser Asp Arg Glu Ala Pro Gly Cys Arg Ala		335
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Lys Ala Phe Leu Glu His Met Ser Glu Val Gln Pro Asp Ser Pro Gln		365
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&lt;210&gt; 4051

&lt;211&gt; 1645

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4051

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&lt;210&gt; 4052

&lt;211&gt; 93

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4052

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		20					25					30			
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<212> PRT

<213> Homo sapiens

<400> 4056

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Cys	Phe	Ala	Ser	Leu	Ala	Asp	Arg	Phe	Thr	Arg	Arg	Gly	Val	Asp	Pro
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Ala	Pro	Leu	Ala	Lys	His	Gly	Leu	Thr	Glu	Glu	Leu	Leu	Ser	Arg	Met
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Ala	Ala	Ala	Gly	Gly	Thr	Val	Ser	Gly	Pro	Ser	Ser	Ala	Cys	Lys	Pro
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3238

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&lt;210&gt; 4057

&lt;211&gt; 533



&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4057

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&lt;211&gt; 157

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4058

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&lt;211&gt; 3994

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&lt;213&gt; Homo sapiens

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<211> 714

<212> PRT

<213> Homo sapiens

<400> 4060

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&lt;210&gt; 4061

&lt;211&gt; 519

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4061

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&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4062

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1020  
taccacatcg gccagtttgg cctggtgaaa gggaaatcca tgccatatga gtttgacatc  
1080  
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1140  
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1200  
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2520



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2760  
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4137

&lt;210&gt; 4064

&lt;211&gt; 818

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4064

Asp Val Glu Leu Gly Ser Met Gln Val Met Asn Lys Thr Arg Arg Ile  
 1 5 10 15  
 Met Glu Gln Gly Gly Thr His Phe Ile Asn Ala Phe Val Thr Thr Pro  
 20 25 30  
 Met Cys Cys Pro Ser Arg Ser Ser Ile Leu Thr Gly Lys Tyr Val His  
 35 40 45  
 Asn His Asn Thr Tyr Thr Asn Asn Glu Asn Cys Ser Ser Pro Ser Trp  
 50 55 60  
 Gln Ala Gln His Glu Ser Arg Thr Phe Ala Val Tyr Leu Asn Ser Thr  
 65 70 75 80  
 Gly Tyr Arg Thr Ala Phe Phe Gly Lys Tyr Leu Asn Glu Tyr Asn Gly  
 85 90 95  
 Ser Tyr Val Pro Pro Gly Trp Lys Glu Trp Val Gly Leu Leu Lys Asn  
 100 105 110  
 Ser Arg Phe Tyr Asn Tyr Thr Leu Cys Arg Asn Gly Val Lys Glu Lys  
 115 120 125  
 His Gly Ser Asp Tyr Ser Lys Asp Tyr Leu Thr Asp Leu Ile Thr Asn  
 130 135 140  
 Asp Ser Val Ser Phe Phe Arg Thr Ser Lys Lys Met Tyr Pro His Arg  
 145 150 155 160  
 Pro Val Leu Met Val Ile Ser His Ala Ala Pro His Gly Pro Glu Asp  
 165 170 175  
 Ser Ala Pro Gln Tyr Ser Arg Leu Phe Pro Asn Ala Ser Gln His Ile  
 180 185 190  
 Thr Pro Ser Tyr Asn Tyr Ala Pro Asp Pro Asp Lys His Trp Ile Met  
 195 200 205  
 Arg Tyr Thr Gly Pro Met Lys Pro Ile His Met Glu Phe Thr Asn Met  
 210 215 220  
 Leu Gln Arg Lys Arg Leu Gln Thr Leu Met Ser Val Asp Asp Ser Met  
 225 230 235 240  
 Glu Thr Ile Tyr Asn Met Leu Val Glu Thr Gly Glu Leu Asp Asn Thr  
 245 250 255  
 Tyr Ile Val Tyr Thr Ala Asp His Gly Tyr His Ile Gly Gln Phe Gly  
 260 265 270  
 Leu Val Lys Gly Lys Ser Met Pro Tyr Glu Phe Asp Ile Arg Val Pro  
 275 280 285  
 Phe Tyr Val Arg Gly Pro Asn Val Glu Ala Gly Cys Leu Asn Pro His  
 290 295 300  
 Ile Val Leu Asn Ile Asp Leu Ala Pro Thr Ile Leu Asp Ile Ala Gly  
 305 310 315 320  
 Leu Asp Ile Pro Ala Asp Met Asp Gly Lys Ser Ile Leu Lys Leu Leu  
 325 330 335  
 Asp Thr Glu Arg Pro Val Asn Arg Phe His Leu Lys Lys Lys Met Arg  
 340 345 350  
 Val Trp Arg Asp Ser Phe Leu Val Glu Arg Gly Lys Leu Leu His Lys  
 355 360 365  
 Arg Asp Asn Asp Lys Val Asp Ala Gln Glu Glu Asn Phe Leu Pro Lys

370		375		380
Tyr Gln Arg Val Lys Asp Leu Cys Gln Arg Ala Glu Tyr Gln Thr Ala				
385		390		395
Cys Glu Gln Leu Gly Gln Lys Trp Gln Cys Val Glu Asp Ala Thr Gly				400
	405		410	415
Lys Leu Lys Leu His Lys Cys Lys Gly Pro Met Arg Leu Gly Gly Ser				
	420		425	430
Arg Ala Leu Ser Asn Leu Val Pro Lys Tyr Tyr Gly Gln Gly Ser Glu				
	435		440	445
Ala Cys Thr Cys Asp Ser Gly Asp Tyr Lys Leu Ser Leu Ala Gly Arg				
	450		455	460
Arg Lys Lys Xaa Leu Gln Glu Glu Xaa Tyr Lys Ala Ser Tyr Val Arg				
465		470		475
Asn Arg Ser Ile Arg Ser Val Ala Ile Glu Val Asp Gly Arg Val Tyr				
	485		490	495
His Val Gly Leu Gly Asp Ala Ala Gln Pro Arg Asn Leu Thr Lys Arg				
	500		505	510
His Trp Pro Gly Ala Pro Glu Asp Gln Asp Asp Lys Asp Gly Gly Asp				
	515		520	525
Xaa Ser Val Ala Leu Glu Ala Phe Pro Thr Thr Gln Pro Pro Thr Xaa				
	530		535	540
Ile Lys Val Thr His Arg Cys Tyr Ile Leu Glu Asn Asp Thr Val Gln				
545		550		555
Cys Asp Leu Asp Leu Tyr Lys Ser Leu Gln Ala Trp Lys Asp His Lys				
	565		570	575
Leu His Ile Asp His Glu Ile Glu Thr Leu Gln Asn Lys Ile Lys Asn				
	580		585	590
Leu Arg Glu Val Arg Gly His Leu Lys Lys Lys Arg Pro Glu Glu Cys				
	595		600	605
Asp Cys His Lys Ile Ser Tyr His Thr Gln His Lys Gly Arg Leu Lys				
	610		615	620
His Arg Gly Ser Ser Leu His Pro Phe Arg Lys Gly Leu Gln Glu Lys				
625		630		635
Asp Lys Val Trp Leu Leu Arg Glu Gln Lys Arg Lys Lys Lys Leu Arg				
	645		650	655
Lys Leu Leu Lys Arg Leu Gln Asn Asn Asp Thr Cys Ser Met Pro Gly				
	660		665	670
Leu Thr Cys Phe Thr His Asp Asn Gln His Trp Gln Thr Ala Pro Phe				
	675		680	685
Trp Thr Leu Gly Pro Phe Cys Ala Cys Thr Ser Ala Asn Asn Asn Thr				
	690		695	700
Tyr Trp Cys Met Arg Thr Ile Asn Glu Thr His Asn Phe Leu Phe Cys				
705		710		715
Glu Phe Ala Thr Gly Phe Leu Glu Tyr Phe Asp Leu Asn Thr Asp Pro				
	725		730	735
Tyr Gln Leu Met Asn Ala Val Asn Thr Leu Asp Arg Asp Val Leu Asn				
	740		745	750
Gln Leu His Val Gln Leu Met Glu Leu Arg Ser Cys Lys Gly Tyr Lys				
	755		760	765
Gln Cys Asn Pro Arg Thr Arg Asn Met Asp Leu Gly Leu Lys Asp Gly				
	770		775	780
Gly Ser Tyr Glu Gln Tyr Arg Gln Phe Gln Arg Arg Lys Trp Pro Glu				
785		790		795
Met Lys Arg Pro Ser Ser Lys Ser Leu Gly Gln Leu Trp Glu Gly Trp				800

3254

	100		105		110
Lys	Gly Tyr Glu Glu Asp Val	Gly Arg Met Thr Met	Ile Arg Val Val		
	115	120	125		
Ser	His Thr Ser Val Pro Leu	Leu Lys Asn Pro Asp Tyr Phe Phe			
	130	135	140		
Lys	Glu Ala Asn Thr Thr Ile Tyr Val	Ile Trp Gly Pro Phe Arg Asn			
	145	150	155	160	
Met	Arg Lys Asp Gly Asn Gly Ile Val	Tyr Asn Met Leu Lys Lys Thr			
	165	170	175		
Val	Gly Ile Tyr Pro Asn Ala Gln Ile	Tyr Val Thr Thr Glu Lys Arg			
	180	185	190		
Met	Ser Tyr Cys Asp Gly Val Leu	Arg Arg Lys Xaa Gly Lys Asp Ser			
	195	200	205		
Thr	Glu				
	210				

&lt;210&gt; 4067

&lt;211&gt; 1800

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4067

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120
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180
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240
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360
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420
gccgtccaat caggaagcct ggccctttct ggaggtcctt ccaatgaagg cacagtccta
480
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540
gaagttcttc atcagatatt ttctaaattt ggcacagtct tgaagattat cacctttaca
600
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660
aaaatggctc tggatggcca gaatatctat aatgcattgt gcactctgcg cattgacttc
720
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780
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900
ggatttcttc aagctacagg tctatcagtt ccagctgttc ctggagctct tggctctctc
960

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acaatcacct cttctgctgt cactggaagg atggccattc ctggggctag tggatatacca  
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 1080  
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 1140  
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 aagtatatat taaaaatcaa gggatttttt ttttttgtat tccccctgca aaaaaaaaaa  
 1800

&lt;210&gt; 4068

&lt;211&gt; 521

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4068

Met	Asn	Ser	Ser	Thr	Pro	Ser	Thr	Ala	Asn	Gly	Asn	Asp	Ser	Lys	Lys
1				5					10					15	
Phe	Lys	Arg	Asp	Arg	Pro	Pro	Cys	Ser	Pro	Ser	Arg	Val	Leu	His	Leu
			20					25					30		
Arg	Lys	Ile	Pro	Cys	Asp	Val	Thr	Glu	Ala	Glu	Ile	Ile	Ser	Leu	Gly
		35				40						45			
Leu	Pro	Phe	Gly	Lys	Val	Thr	Asn	Leu	Leu	Met	Leu	Lys	Gly	Lys	Ser
	50				55						60				
Gln	Ala	Phe	Leu	Glu	Met	Ala	Ser	Glu	Glu	Ala	Ala	Val	Thr	Met	Val
65				70					75					80	
Asn	Tyr	Tyr	Thr	Pro	Ile	Thr	Pro	His	Leu	Arg	Ser	Gln	Pro	Val	Tyr
			85					90					95		
Ile	Gln	Tyr	Ser	Asn	His	Arg	Glu	Leu	Lys	Thr	Asp	Asn	Leu	Pro	Asn
		100					105					110			
Gln	Ala	Arg	Ala	Gln	Ala	Ala	Leu	Gln	Ala	Val	Ser	Ala	Val	Gln	Ser
	115					120						125			
Gly	Ser	Leu	Ala	Leu	Ser	Gly	Gly	Pro	Ser	Asn	Glu	Gly	Thr	Val	Leu
	130					135					140				
Pro	Gly	Gln	Ser	Pro	Val	Leu	Arg	Ile	Ile	Ile	Glu	Asn	Leu	Phe	Tyr

145 150 155 160  
 Pro Val Thr Leu Glu Val Leu His Gln Ile Phe Ser Lys Phe Gly Thr  
 165 170 175  
 Val Leu Lys Ile Ile Thr Phe Thr Lys Asn Asn Gln Phe Gln Ala Leu  
 180 185 190  
 Leu Gln Tyr Ala Asp Pro Val Asn Ala His Tyr Ala Lys Met Ala Leu  
 195 200 205  
 Asp Gly Gln Asn Ile Tyr Asn Ala Cys Cys Thr Leu Arg Ile Asp Phe  
 210 215 220  
 Ser Lys Leu Thr Ser Leu Asn Val Lys Tyr Asn Asn Asp Lys Ser Arg  
 225 230 235 240  
 Asp Phe Thr Arg Leu Asp Leu Pro Thr Gly Asp Gly Gln Pro Ser Leu  
 245 250 255  
 Glu Pro Pro Met Ala Ala Ala Phe Gly Ala Pro Gly Ile Ile Ser Ser  
 260 265 270  
 Pro Tyr Ala Gly Ala Ala Gly Phe Ala Pro Ala Ile Gly Phe Pro Gln  
 275 280 285  
 Ala Thr Gly Leu Ser Val Pro Ala Val Pro Gly Ala Leu Gly Pro Leu  
 290 295 300  
 Thr Ile Thr Ser Ser Ala Val Thr Gly Arg Met Ala Ile Pro Gly Ala  
 305 310 315 320  
 Ser Gly Ile Pro Gly Asn Ser Val Leu Leu Val Thr Asn Leu Asn Pro  
 325 330 335  
 Asp Leu Ile Thr Pro His Gly Leu Phe Ile Leu Phe Gly Val Tyr Gly  
 340 345 350  
 Asp Val His Arg Val Lys Ile Met Phe Asn Lys Lys Glu Asn Ala Leu  
 355 360 365  
 Val Gln Met Ala Asp Ala Asn Gln Ala Gln Leu Ala Met Asn His Leu  
 370 375 380  
 Ser Gly Gln Arg Leu Tyr Gly Lys Val Leu Arg Ala Thr Leu Ser Lys  
 385 390 395 400  
 His Gln Ala Val Gln Leu Pro Arg Glu Gly Gln Glu Asp Gln Gly Leu  
 405 410 415  
 Thr Lys Asp Phe Ser Asn Ser Pro Leu His Arg Phe Lys Lys Pro Gly  
 420 425 430  
 Ser Lys Asn Phe Gln Asn Ile Phe Pro Pro Ser Ala Thr Leu His Leu  
 435 440 445  
 Ser Asn Ile Pro Pro Ser Val Thr Val Asp Asp Leu Lys Asn Leu Phe  
 450 455 460  
 Ile Glu Ala Gly Cys Ser Val Lys Ala Phe Lys Phe Phe Gln Lys Asp  
 465 470 475 480  
 Arg Lys Met Ala Leu Ile Gln Leu Gly Ser Val Glu Glu Ala Ile Gln  
 485 490 495  
 Ala Leu Ile Glu Leu His Asn His Asp Leu Gly Glu Asn His His Leu  
 500 505 510  
 Arg Val Ser Phe Ser Lys Ser Thr Ile  
 515 520

&lt;210&gt; 4069

&lt;211&gt; 714

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4069

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 gaatggctga agatgtcata ccctgccaaag gtaaccctgc tggggtcagt tatcttcaca  
 120  
 ttccagcaca cccagcatct ggcaatatca aagcataatc ttatgttcct ttataccatc  
 180  
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 240  
 ccttttgagg atacattgag ttggatgcta tttggctggc agcagccgtt ttcatcatgt  
 300  
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 360  
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 420  
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 480  
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 540  
 aagaaattct ttgtttgagg gagacttccc ctttctggat tgtatttgta gagtgttacg  
 600  
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 660  
 ttttatatta ataaaagaag acaaaatttt ttaaagtta aaaaaagcag atct  
 714

&lt;210&gt; 4070

&lt;211&gt; 113

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4070

Met	Ser	Tyr	Pro	Ala	Lys	Val	Thr	Leu	Leu	Gly	Ser	Val	Ile	Phe	Thr
1				5					10					15	
Phe	Gln	His	Thr	Gln	His	Leu	Ala	Ile	Ser	Lys	His	Asn	Leu	Met	Phe
			20					25					30		
Leu	Tyr	Thr	Ile	Phe	Ile	Val	Ala	Thr	Lys	Ile	Thr	Met	Met	Thr	Thr
		35				40					45				
Gln	Thr	Ser	Thr	Met	Thr	Phe	Ala	Pro	Phe	Glu	Asp	Thr	Leu	Ser	Trp
	50					55				60					
Met	Leu	Phe	Gly	Trp	Gln	Gln	Pro	Phe	Ser	Ser	Cys	Glu	Lys	Lys	Ser
65					70				75					80	
Glu	Ala	Lys	Ser	Pro	Ser	Asn	Gly	Val	Gly	Ser	Leu	Ala	Ser	Lys	Pro
			85					90					95		
Val	Asp	Val	Ala	Ser	Asp	Asn	Val	Lys	Lys	Lys	His	Thr	Lys	Lys	Asn
			100					105					110		

Glu

&lt;210&gt; 4071

&lt;211&gt; 601

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4071



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 120  
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 240  
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 480  
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 540  
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 600  
 c  
 601

&lt;210&gt; 4072

&lt;211&gt; 175

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4072

Met	Val	His	Arg	Arg	Gly	Trp	Pro	Ser	Cys	Leu	Ala	Arg	Gly	Gly	Arg
1				5					10					15	
Cys	Ala	Leu	Val	Pro	Arg	Leu	Val	Arg	Met	Lys	Val	Phe	His	Leu	Ser
			20					25				30			
Leu	Ser	Gln	Ser	Val	Val	Leu	Arg	His	His	Trp	Ile	Leu	Pro	Phe	Val
		35				40					45				
Gln	Ala	Leu	Lys	Ala	Arg	Met	Thr	Ser	Phe	His	Arg	Phe	Phe	Phe	Thr
	50				55				60						
Ala	Asn	Gln	Val	Lys	Ile	Tyr	Thr	Asn	Gln	Glu	Lys	Thr	Arg	Thr	Phe
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Ser	Glu	Val	Asp	Arg	Val	Met	Glu	Glu	Phe	Asn	Leu	Thr	Thr	Phe	Tyr
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Gln	Asp	Pro	Ser	Phe	His	Leu	Ser	Leu	Ala	Trp	Cys	Val	Gly	Asp	Ala
	115					120					125				
Arg	Leu	Gln	Leu	Glu	Gly	Gln	Cys	Leu	Gln	Glu	Leu	Gln	Ala	Ile	Val
	130				135						140				
Asp	Gly	Phe	Glu	Asp	Ala	Glu	Val	Leu	Leu	Arg	Val	His	Thr	Glu	Gln
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&lt;210&gt; 4073

&lt;211&gt; 1864

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4073

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<210> 4074

<211> 456

<212> PRT

<213> Homo sapiens

<400> 4074

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			20					25					30		
Asn	Pro	Val	Asp	Ala	Ile	Tyr	Gln	Pro	Ser	Pro	Leu	Glu	Pro	Val	Ile
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Ser	Thr	Met	Pro	Ser	Gln	Thr	Val	Leu	Pro	Pro	Glu	Pro	Val	Gln	Leu
	50					55				60					
Cys	Lys	Ser	Glu	Gln	Arg	Pro	Ser	Ser	Leu	Pro	Val	Gly	Pro	Val	Leu
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			100					105					110		
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		115					120						125		
Glu	Phe	Tyr	Asp	Ala	Asp	Glu	Phe	His	Gln	Ser	Gly	Ser	Ser	Pro	Lys
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		180					185						190		
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Val	Ile	Met	His	Leu	Leu	Ser	Gln	Val	Arg	Leu	Gly	Met	Asp	Leu	Thr
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Lys	Val	Val	Leu	Pro	Thr	Phe	Ile	Leu	Glu	Arg	Arg	Ser	Leu	Leu	Glu
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Asp	Gln	Lys	Asp	Pro	Lys	Asp	Arg	Met	Val	Gln	Val	Val	Lys	Trp	Tyr

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 305 310 315 320  
 Trp Val Ser Lys Asn Ser Val Thr Phe Val Ala Glu Gln Val Ser His  
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 His Pro Pro Ile Ser Ala Phe Tyr Ala Glu Cys Phe Asn Lys Lys Ile  
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 Gln Phe Asn Ala His Ile Trp Thr Lys Ser Lys Phe Leu Gly Met Ser  
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 Ile Gly Val His Asn Ile Gly Gln Gly Cys Val Ser Cys Leu Asp Tyr  
 370 375 380  
 Asp Glu His Tyr Ile Leu Thr Phe Pro Asn Gly Tyr Gly Arg Ser Ile  
 385 390 395 400  
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 Ser Lys Thr Gly Tyr Ser Ala Asn Ile Ile Phe His Thr Lys Pro Phe  
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 Tyr Gly Gly Lys Lys His Arg Ile Thr Ala Glu Ile Phe Ser Pro Asn  
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 Asp Lys Lys Ser Phe Cys Ser Ile  
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&lt;210&gt; 4075

&lt;211&gt; 2492

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4075

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<210> 4076

<211> 410

<212> PRT

<213> Homo sapiens

<400> 4076

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Ala	Gly	Ile	His	Arg	Asn	Leu	Gly	Val	His	Ile	Ser	Arg	Val	Lys	Ser
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Val	Asn	Leu	Asp	Gln	Trp	Thr	Gln	Glu	Gln	Ile	Gln	Cys	Met	Gln	Glu
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Thr	Phe	Arg	Arg	Pro	Gln	Ile	Asp	Pro	Ala	Val	Glu	Gly	Phe	Ile	Arg
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Ala	Phe	Arg	Lys	Glu	Lys	Asp	Asp	Lys	Trp	Lys	Arg	Gly	Ser	Glu	Pro
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Pro	Gln	Lys	Lys	Glu	Asp	Pro	Gln	Leu	Pro	Arg	Lys	Ser	Ser	Pro	Lys
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Cys	Ser	Ile	Ala	Asn	Ser	Lys	Thr	Ser	Asn	Thr	Leu	Glu	Lys	Asp	Leu
		180						185					190		
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		210				215					220				
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Lys	Lys	Gln	Leu	Ser	Lys	Asp	Ser	Ile	Leu	Ser	Leu	Tyr	Gly	Ser	Gln
			245					250						255	
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		260						265					270		
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		275				280						285			
Ser	Ile	Met	Gly	Ser	Met	Met	Pro	Pro	Pro	Val	Gly	Met	Val	Ala	Gln
		290				295					300				
Pro	Gly	Ala	Ser	Gly	Met	Val	Ala	Pro	Met	Ala	Met	Pro	Ala	Gly	Tyr

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Thr Val Tyr Gly Val Gln Pro Ala Gln Gln Leu Gln Trp Asn Leu Thr
          355          360          365
Gln Met Thr Gln Gln Met Ala Gly Met Asn Phe Tyr Gly Ala Asn Gly
          370          375          380
Met Met Asn Tyr Gly Gln Ser Met Ser Gly Gly Asn Gly Gln Ala Ala
385          390          395          400
Asn Gln Thr Leu Ser Pro Gln Met Trp Lys
          405          410

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&lt;210&gt; 4077

&lt;211&gt; 684

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4077

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&lt;210&gt; 4078

&lt;211&gt; 194

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4078

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Ser Met Arg Tyr Leu Ala Leu Met Val Ser Arg Pro Val Leu Arg Leu

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Thr	Cys	Arg	Glu	Ala	Met	Glu	Ala	Arg	Leu	Leu	Gln	Leu	Gln	Asp	
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Arg	Gln	His	Phe	Val	Glu	Asn	Asp	Glu	Met	Tyr	Ser	Val	Gln	Asp	Leu
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Lys	Gly	Phe	Val	Cys	Glu	Leu	Cys	Arg	Glu	Gly	Asp	Val	Leu	Phe	Pro
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Phe	Asp	Ser	His	Thr	Ser	Val	Cys	Ala	Asp	Cys	Ser	Ala	Val	Phe	His
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Arg	Asp	Cys	Tyr	Tyr	Asp	Asn	Ser	Thr	Thr	Cys	Pro	Lys	Cys	Ala	Arg
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&lt;210&gt; 4079

&lt;211&gt; 783

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4079

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780

nta

783

<210> 4080

<211> 101

<212> PRT

<213> Homo sapiens

<400> 4080

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		20					25					30			
Leu	Thr	Pro	Ser	Val	Cys	Leu	Pro	Ser	Lys	Leu	His	Cys	Pro	Asn	Arg
	35					40					45				
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Arg	Ala	Gln	Pro	Ser	Pro	Glu	Arg	Thr	Leu	His	Ser	Asn	Leu	Pro	Gln
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Ser	Trp	Gly	Lys	His	Glu	Gly	Cys	Pro	Ser	Thr	Glu	Val	Asn	Pro	Gly
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<210> 4081

<211> 645

<212> DNA

<213> Homo sapiens

<400> 4081

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<400> 4082  
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 Val Arg Pro Val Gln Asn Leu Ala Leu Gly Lys Glu Glu Leu Ile Gly  
 35 40 45  
 Thr Met Glu Gln Ile Phe Met Asn Val Ala Ile Phe Glu Asp Glu Val  
 50 55 60  
 Phe Ala Gly Val Thr Thr His Gln Glu Leu Phe Pro His Ser Leu Leu  
 65 70 75 80  
 Ser Val Ile Ala Asn Phe Ile Pro Phe Ser Asp His Asn Gln Ser Pro  
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 Arg Asn Met Tyr Gln Cys Gln Met Gly Lys Gln Thr Met Gly Phe Pro  
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 Thr Pro Gln Ser Pro Leu Val Arg Pro Ser Met Tyr Asp Tyr Tyr Asp  
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 145 150 155 160  
 Tyr Thr Gly Tyr Asp Met Glu Asp Ala Met Ile Val Asn Lys Ala Ser  
 165 170 175  
 Trp Glu Arg Gly Phe Ala His Gly Ser Val Tyr Lys Ser Glu Phe Ile  
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&lt;210&gt; 4084

&lt;211&gt; 362

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4084

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 Tyr Asn Gln Ala Thr Pro Thr Phe His Gln Trp Arg Asp Ala Arg Gln  
 20 25 30  
 Val Tyr Gly Leu Asn Phe Ala Ser Lys Glu Glu Ala Thr Thr Phe Ser  
 35 40 45  
 Asn Ala Met Leu Phe Ala Leu Asn Ile Met Asn Ser Gln Glu Gly Gly  
 50 55 60  
 Pro Ser Ser Gln Arg Gln Val Gln Asn Gly Pro Ser Pro Asp Glu Met  
 65 70 75 80  
 Asp Ile Gln Arg Arg Gln Val Met Glu Gln His Gln Gln Gln Arg Gln  
 85 90 95  
 Glu Ser Leu Glu Arg Arg Thr Ser Ala Thr Gly Pro Ile Leu Pro Pro

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	130						135					140			
Pro	Pro	Pro	Pro	Pro	Pro	Leu	Pro	Ala	Gly	Gly	Ala	Gln	Gly	Ser	Ser
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His	Asp	Glu	Ser	Ser	Met	Ser	Gly	Leu	Ala	Ala	Ala	Ile	Ala	Gly	Ala
						165					170				175
Lys	Leu	Arg	Arg	Val	Gln	Arg	Pro	Glu	Asp	Ala	Ser	Gly	Gly	Ser	Ser
						180					185				190
Pro	Ser	Gly	Thr	Ser	Lys	Ser	Asp	Ala	Asn	Arg	Ala	Ser	Ser	Gly	Gly
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Gly	Gly	Gly	Gly	Leu	Met	Glu	Glu	Met	Asn	Lys	Leu	Leu	Ala	Lys	Arg
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Arg	Lys	Ala	Ala	Ser	Gln	Ser	Asp	Lys	Pro	Ala	Glu	Lys	Lys	Glu	Asp
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Glu	Ser	Gln	Met	Glu	Asp	Pro	Ser	Thr	Ser	Pro	Ser	Pro	Gly	Thr	Arg
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Ala	Ala	Ser	Gln	Pro	Pro	Asn	Ser	Ser	Glu	Ala	Gly	Arg	Lys	Pro	Trp
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Glu	Arg	Ser	Asn	Ser	Val	Glu	Lys	Pro	Val	Ser	Ser	Ile	Leu	Ser	Arg
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Thr	Pro	Ser	Val	Ala	Lys	Ser	Pro	Glu	Ala	Lys	Ser	Pro	Leu	Gln	Ser
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Gln	Pro	His	Ser	Arg	Met	Lys	Pro	Ala	Gly	Ser	Val	Asn	Asp	Met	Ala
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Leu	Asp	Ala	Phe	Asp	Leu	Asp	Arg	Met	Lys	Gln	Glu	Ile	Leu	Glu	Glu
						325					330				335
Val	Val	Arg	Glu	Leu	His	Lys	Val	Lys	Glu	Glu	Ile	Ile	Asp	Ala	Ile
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Arg	Gln	Glu	Leu	Ser	Gly	Ile	Ser	Thr	Thr						
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&lt;210&gt; 4085

&lt;211&gt; 2673

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4085

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180

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240

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420

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 2673

&lt;210&gt; 4086

&lt;211&gt; 789

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4086

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			20					25					30		
Phe	Leu	Leu	Val	Phe	Ala	Ile	Ala	Ala	Ala	Tyr	Val	Trp	Ile	Glu	
			35					40					45		
Gly	Thr	Lys	Asp	Pro	Ser	Arg	Asn	Arg	Tyr	Lys	Leu	Phe	Leu	Glu	Cys
			50					55			60				
Thr	Leu	Ile	Leu	Thr	Ser	Val	Val	Pro	Pro	Glu	Leu	Pro	Ile	Glu	Leu
			65					70			75			80	
Ser	Leu	Ala	Val	Asn	Thr	Ser	Leu	Ile	Ala	Leu	Ala	Lys	Leu	Tyr	Met
			85					90						95	
Tyr	Cys	Thr	Glu	Pro	Phe	Arg	Ile	Pro	Phe	Ala	Gly	Lys	Val	Glu	Val
			100					105					110		
Cys	Cys	Phe	Asp	Lys	Thr	Gly	Thr	Leu	Thr	Ser	Asp	Ser	Leu	Val	Val
			115					120					125		
Arg	Gly	Val	Ala	Gly	Leu	Arg	Asp	Gly	Lys	Glu	Val	Thr	Pro	Val	Ser
			130					135					140		
Ser	Ile	Pro	Val	Glu	Thr	His	Arg	Ala	Leu	Ala	Ser	Cys	His	Ser	Leu
			145					150					155		160
Met	Gln	Leu	Asp	Asp	Gly	Thr	Leu	Val	Gly	Asp	Pro	Leu	Glu	Lys	Ala
			165					170						175	
Met	Leu	Thr	Ala	Val	Asp	Trp	Thr	Leu	Thr	Lys	Asp	Glu	Lys	Val	Phe
			180					185					190		
Pro	Arg	Ser	Ile	Lys	Thr	Gln	Gly	Leu	Lys	Ile	His	Gln	Arg	Phe	His

195	200	205
Phe Ala Ser Ala Leu Lys Arg Met Ser Val Leu Ala Ser Tyr Glu Lys		
210	215	220
Leu Gly Ser Thr Asp Leu Cys Tyr Ile Ala Ala Val Lys Gly Ala Pro		
225	230	235
Glu Thr Leu His Ser Met Phe Ser Gln Cys Pro Pro Asp Tyr His His		
245	250	255
Ile His Thr Glu Ile Ser Arg Glu Gly Ala Arg Val Leu Ala Leu Gly		
260	265	270
Tyr Lys Glu Leu Gly His Leu Thr His Gln Gln Ala Arg Glu Val Lys		
275	280	285
Arg Glu Ala Leu Glu Cys Ser Leu Lys Phe Val Gly Phe Ile Val Val		
290	295	300
Ser Cys Pro Leu Lys Ala Asp Ser Lys Ala Val Ile Arg Glu Ile Gln		
305	310	315
Asn Ala Ser His Arg Val Val Met Ile Thr Gly Asp Asn Pro Leu Thr		
325	330	335
Ala Cys His Val Ala Gln Glu Leu His Phe Ile Glu Lys Ala His Thr		
340	345	350
Leu Ile Leu Gln Pro Pro Ser Glu Lys Gly Arg Gln Cys Glu Trp Arg		
355	360	365
Ser Ile Asp Gly Ser Ile Val Leu Pro Leu Xaa Pro Gly Ala Pro Gln		
370	375	380
Arg His Trp Pro Trp Ser Thr His Xaa Cys Leu Thr Gly Asp Gly Leu		
385	390	395
Ala His Leu Gln Ala Thr Asp Pro Gln Gln Leu Leu Arg Leu Ile Pro		
405	410	415
His Val Gln Val Phe Ala Arg Val Ala Pro Lys Gln Lys Glu Phe Val		
420	425	430
Ile Thr Ser Leu Lys Glu Leu Gly Tyr Val Thr Leu Met Cys Gly Asp		
435	440	445
Gly Thr Asn Asp Val Gly Ala Leu Lys His Ala Asp Val Gly Val Ala		
450	455	460
Leu Leu Ala Asn Ala Pro Glu Arg Val Val Glu Arg Arg Arg Arg Pro		
465	470	475
Arg Asp Ser Pro Thr Leu Ser Asn Ser Gly Ile Arg Ala Thr Ser Arg		
485	490	495
Thr Ala Lys Gln Arg Ser Gly Leu Pro Pro Ser Glu Glu Gln Pro Thr		
500	505	510
Ser Gln Arg Asp Arg Leu Ser Gln Val Leu Arg Asp Leu Glu Asp Glu		
515	520	525
Ser Thr Pro Ile Val Lys Leu Gly Asp Ala Ser Ile Ala Ala Pro Phe		
530	535	540
Thr Ser Lys Leu Ser Ser Ile Gln Cys Ile Cys His Val Ile Lys Gln		
545	550	555
Gly Arg Cys Thr Leu Val Thr Thr Leu Gln Met Phe Lys Ile Leu Ala		
565	570	575
Leu Asn Ala Leu Ile Leu Ala Tyr Ser Gln Ser Val Leu Tyr Leu Glu		
580	585	590
Gly Val Lys Phe Ser Asp Phe Gln Ala Thr Leu Gln Gly Leu Leu Leu		
595	600	605
Ala Gly Cys Phe Leu Phe Ile Ser Arg Ser Lys Pro Leu Lys Thr Leu		
610	615	620
Ser Arg Glu Arg Pro Leu Pro Asn Ile Phe Asn Leu Tyr Thr Ile Leu		



625                      630                      635                      640  
 Thr Val Met Leu Gln Phe Phe Val His Phe Leu Ser Leu Val Tyr Leu  
                                 645                      650                      655  
 Tyr Arg Glu Ala Gln Ala Arg Ser Pro Xaa Arg Xaa Gln Glu Gln Phe  
                                 660                      665                      670  
 Val Asp Leu Tyr Lys Glu Phe Glu Pro Ser Leu Val Asn Ser Thr Val  
                                 675                      680                      685  
 Tyr Ile Met Ala Met Ala Met Gln Met Ala Thr Phe Ala Ile Asn Tyr  
                                 690                      695                      700  
 Lys Gly Pro Pro Phe Met Glu Ser Leu Pro Glu Asn Lys Pro Leu Val  
 705                                  710                                  715                                  720  
 Trp Ser Leu Ala Val Ser Leu Leu Ala Ile Ile Gly Leu Leu Leu Gly  
                                 725                                  730                                  735  
 Ser Ser Pro Asp Phe Asn Ser Gln Phe Gly Leu Val Asp Ile Pro Val  
                                 740                                  745                                  750  
 Glu Phe Lys Leu Val Ile Ala Gln Val Leu Leu Leu Asp Phe Cys Leu  
                                 755                                  760                                  765  
 Ala Leu Leu Ala Asp Arg Val Leu Gln Phe Phe Leu Gly Thr Pro Lys  
                                 770                                  775                                  780  
 Leu Lys Val Pro Ser  
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&lt;210&gt; 4087

&lt;211&gt; 959

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4087

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 780

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 959

<210> 4088

<211> 319

<212> PRT

<213> Homo sapiens

<400> 4088

Arg	Gly	Ser	Leu	Glu	Lys	Ala	Leu	Phe	Gln	Leu	Leu	Lys	Val	Trp	Gly
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Gln	Trp	Ala	Glu	Gln	Thr	Arg	Arg	Leu	Gln	Arg	Leu	Asp	Val	Ser	Leu
	20						25					30			
Ala	Val	Ala	Arg	Val	Arg	Ser	Ala	Gly	Pro	Ser	Cys	Gln	Asn	Lys	Gly
	35						40					45			
Asp	Leu	Val	Met	Glu	Ala	Leu	Leu	Glu	Gly	Ile	Gln	Asn	Arg	Gly	His
	50					55					60				
Gly	Gly	Gly	Phe	Leu	Thr	Ser	Cys	Glu	Ala	Glu	Leu	Gln	Glu	Leu	Met
65					70					75				80	
Lys	Gln	Ile	Asp	Ile	Met	Val	Ala	His	Lys	Lys	Ser	Glu	Trp	Glu	Gly
			85						90					95	
Arg	Thr	His	Ala	Leu	Glu	Thr	Cys	Leu	Lys	Ile	Arg	Glu	Gln	Glu	Leu
			100					105					110		
Lys	Ser	Leu	Arg	Ser	Gln	Leu	Asp	Val	Thr	His	Lys	Glu	Val	Gly	Met
		115					120					125			
Leu	His	Gln	Gln	Val	Glu	Glu	His	Glu	Lys	Ile	Lys	Gln	Glu	Met	Thr
	130						135					140			
Met	Glu	Tyr	Lys	Gln	Glu	Leu	Lys	Lys	Leu	His	Glu	Glu	Leu	Cys	Ile
145					150					155				160	
Leu	Lys	Arg	Ser	Tyr	Glu	Lys	Leu	Gln	Lys	Lys	Gln	Met	Arg	Glu	Phe
			165					170						175	
Arg	Gly	Asn	Thr	Lys	Asn	His	Arg	Glu	Asp	Arg	Ser	Glu	Ile	Glu	Arg
		180						185					190		
Leu	Thr	Ala	Lys	Ile	Glu	Glu	Phe	Arg	Gln	Lys	Ser	Leu	Asp	Trp	Glu
	195						200						205		
Lys	Gln	Arg	Leu	Ile	Tyr	Gln	Gln	Gln	Val	Ser	Ser	Leu	Glu	Ala	Gln
	210					215						220			
Arg	Lys	Ala	Leu	Ala	Glu	Gln	Ser	Glu	Ile	Ile	Gln	Ala	Gln	Leu	Val
225					230					235				240	
Asn	Arg	Lys	Gln	Lys	Leu	Glu	Ser	Val	Glu	Leu	Ser	Ser	Gln	Ser	Glu
			245						250					255	
Ile	Gln	His	Leu	Ser	Ser	Lys	Leu	Glu	Arg	Ala	Asn	Asp	Thr	Ile	Cys
		260						265					270		
Ala	Asn	Glu	Leu	Glu	Ile	Glu	Arg	Leu	Thr	Met	Arg	Val	Asn	Asp	Leu
	275						280						285		
Val	Gly	Thr	Ser	Met	Thr	Val	Leu	Gln	Glu	Gln	Gln	Gln	Lys	Glu	Glu
	290					295						300			
Lys	Leu	Arg	Glu	Ser	Glu	Lys	Leu	Leu	Glu	Ala	Leu	Gln	Glu	Lys	
305					310					315					

<210> 4089  
 <211> 511  
 <212> DNA  
 <213> Homo sapiens

<400> 4089  
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 ctttgtcttg cgtctttatt tctatgttct cttgtctctg cacatgggga gaaaccacc  
 120  
 aaccctgtgg ggctggcccc tacacagttt ttaaggggta caggggaagg aagaaacagg  
 180  
 caccatgtgg ggcaggggtt ctgcttctat catatttcca tttgttggtt ttaggagatc  
 240  
 cttccaactc tcactaacat tattttccag agaacaaaag aaaaactatg ctctccaaga  
 300  
 acatgtttcc tttgtaattt ttctgtcttc aaactttttc tggagagatg agtcatttga  
 360  
 cctgacattg agaataggct tgaagccctt tgagaggaca aaggagatag agtcagcatt  
 420  
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 480  
 tcaactgttta tggaagatag agtacacctg t  
 511

<210> 4090  
 <211> 109  
 <212> PRT  
 <213> Homo sapiens

<400> 4090  
 Met Trp Gly Arg Gly Ser Ala Ser Ile Ile Phe Pro Phe Cys Cys Phe  
 1 5 10 15  
 Arg Arg Ser Phe Gln Leu Ser Leu Thr Leu Phe Ser Arg Glu Gln Lys  
 20 25 30  
 Lys Asn Tyr Ala Leu Gln Glu His Val Ser Phe Val Ile Phe Leu Ser  
 35 40 45  
 Ser Asn Phe Phe Trp Arg Asp Glu Ser Phe Asp Leu Thr Leu Arg Ile  
 50 55 60  
 Gly Leu Lys Pro Phe Glu Arg Thr Lys Glu Ile Glu Ser Ala Phe Leu  
 65 70 75 80  
 Ser Pro Cys Ser Glu Asp Pro Ser His Leu Val Thr Ala Pro Trp Ala  
 85 90 95  
 Val Tyr Phe His Cys Leu Trp Lys Ile Glu Tyr Thr Cys  
 100 105

<210> 4091  
 <211> 1526  
 <212> DNA  
 <213> Homo sapiens

<400> 4091  
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 60

gtgccagcg gctccggacg tgctacgggg tgcgagcgcg ggggagttcg gggcgcacga  
120  
caaggaaggg cccccgggag ctctatatgg aggaaggagc ccagaatggt gtgcaccagg  
180  
aagacaaaa ctttgggtgc cacttgctg atcctgagcg gcatgactaa catcatctgc  
240  
ctgctctacg tgggctgggt caccaactac atcgccagcg tgtatgtgcg ggggcaggag  
300  
ccggcgcccg acaagaagct ggaggaagac aaaggggaca ctctgaagat tattgagcgg  
360  
ctggaccacc tggagaatgt catcaagcag cacattcaag gctataggag aaatttctcc  
420  
cttctgaatg tgtccaacta actctgttca cctgagaaat catattcccc agctctgggt  
480  
atccctgaat aaccacagga gaacagttcc aggcctgat aagtcagcta ttgcaagggg  
540  
gacctggctg gaagatatga aggaaaaata tcattcttga actaataagt tgagagatca  
600  
cagccttcag gggaccagaa gggaaggctg aacagagaag ggcaatttca cgttcgccat  
660  
gtccatattt ctatcgctcat gagccatctc accttacagg caggaagtt ttgagcttag  
720  
agaatgggat gcgtcaagaa aaccgtggct cccccagctc tgttcttga ttcaagtgcct  
780  
gttgtttcat cctgtgtaga ctggagtcag ggtctacaca gttggaattc tatggaacca  
840  
agatgctgtg tggcagatgg atgtggactc caactgtgac aatccagaag gccttgggga  
900  
cttgtttcat gaacagctcc ctgtaggatc tctgttgggg tgggggattc taggggcatc  
960  
tccgcagttt tcttctgaaa aaaaaacgaa tacaagttgg gcaggtgcaa caactgtgca  
1020  
tgcagtcccc tcccagggt ggctagcagt attgttgggt accgtaagca cttagcattg  
1080  
ttaagtgagc ataagtaaca agatgcaaca gctctggcc aagttttgaa gattttgtt  
1140  
taaagtatgc ttttagatgt tgacattcat gattattaaa aggaacaaaa ctcaatttgg  
1200  
ggtctcaaga gccacaattc tagacttcta ggatgtcagg agccatgctc ttaagcttct  
1260  
caccctgctg ttttaatgag attaattgatt attttccact gagcacctac ctgtgatgtt  
1320  
cataaaaaag tgaaataaat gactcacatg gagatttggg aggatattcac tgtggaaagt  
1380  
agatgttaac agcctctaga aatatgataa ttatcagcta tttgagatgc agtactgtg  
1440  
atgtgataac aagatgtgtt gtgcaggtag aaagcatgga gagaaatggc acaaagtaga  
1500  
gttataagaa aaaaaaaaaa aaaaaa  
1526

&lt;210&gt; 4092

&lt;211&gt; 146

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4092

His Gly Gly Tyr Thr Gly Ser Gly Pro Gly Phe Gly Glu Pro Arg Asp  
 1 5 10 15  
 Ser Gly Ala Glu Val Pro Ser Gly Ser Gly Arg Ala Thr Gly Cys Glu  
 20 25 30  
 Arg Gly Gly Val Arg Gly Ala Arg Gln Gly Arg Ala Pro Gly Ser Ser  
 35 40 45  
 Ile Trp Arg Lys Glu Pro Arg Met Val Cys Thr Arg Lys Thr Lys Thr  
 50 55 60  
 Leu Val Ser Thr Cys Val Ile Leu Ser Gly Met Thr Asn Ile Ile Cys  
 65 70 75 80  
 Leu Leu Tyr Val Gly Trp Val Thr Asn Tyr Ile Ala Ser Val Tyr Val  
 85 90 95  
 Arg Gly Gln Glu Pro Ala Pro Asp Lys Lys Leu Glu Glu Asp Lys Gly  
 100 105 110  
 Asp Thr Leu Lys Ile Ile Glu Arg Leu Asp His Leu Glu Asn Val Ile  
 115 120 125  
 Lys Gln His Ile Gln Gly Tyr Arg Arg Asn Phe Ser Leu Leu Asn Val  
 130 135 140  
 Ser Asn  
 145

&lt;210&gt; 4093

&lt;211&gt; 1519

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4093

nngggccgcg gccggcagaa gggctgtag gaggaccac gcgccggggg cgcgatctct  
 60  
 ggcagggggc ggtgtgcagc ggaaccatgc acataggcgc ccacgcgcac taccctccc  
 120  
 gaggaaga ggccggggcg cgctgggggg tgagagcatg agggaggccg gggggggctg  
 180  
 cttggagcgc tgctagggag cggtgccgcc gcacaccgc ctgggcgcgg cggagggcgg  
 240  
 ggagcgggca ggtcgcgcct cggcgcagcg accgcgggga gctgttctga tttccgacgc  
 300  
 gcacctaggg gcccgagca gccccgcgc cggcgcgcgc cgcacatggg caacgcaggg  
 360  
 agcatggatt cgcagcagac cgatttcagg gcgcacaacg tgcccttgaa gctgccgatg  
 420  
 ccagagccag gtgaactgga ggagcgattt gccatcgtgc tgaacgctat gaacctacct  
 480  
 cctgacaaag ccaggttact gcggcagtat gataatgaga aaaaatggga actgatttgt  
 540  
 gatcaggaac gattccaggt gaagaatcct cccatacat acattcaaaa gctcaaaggc  
 600  
 tatctggatc cagctgtaac caggaagaaa ttcagacggc gtgttcaaga atctacacaa  
 660  
 gtgctaagag aactggaaat ttctttaaga actaaccaca ttggatgggt cagagaattt  
 720

ctgaatgaag aaaacaaagg tcttgatggt ctagtggaat atctctcatt tgcacagtag  
 780  
 gcggttaactt ttgactttga aagtgtggag agtactgtgg agagctcggt ggacaaatca  
 840  
 aagccctgga gtaggtccat cgaggacctg cacagaggga gcaacctgcc ctcacctgtg  
 900  
 ggcaacagtg tctcccgctc tggaagacat tctgcactgc gatataatac attgccaagc  
 960  
 agaagaactc tgaaaaattc aagattagtg agtaagaaag atgatgtgca tgtctgtatc  
 1020  
 atgtgtttac gtgccatcat gaattatcag tatggtttca acatgggtcat gtctcatcca  
 1080  
 cacgtgtgca atgagattgc actaagcctg aacaacaaga atcccagaac aaaagccctt  
 1140  
 gtcttagaac tgttggcagc cgtttgtctt gtcagaggcg ggcatgaaat cattttatca  
 1200  
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 1260  
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 1320  
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 1380  
 aaattaggcc tggacgaata cttggacaag ctgaaacaca ctgagagtga caagcttcaa  
 1440  
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 1500  
 gaaactaaga atgctgcag  
 1519

&lt;210&gt; 4094

&lt;211&gt; 391

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4094

Met	Gly	Asn	Ala	Gly	Ser	Met	Asp	Ser	Gln	Gln	Thr	Asp	Phe	Arg	Ala
1				5					10					15	
His	Asn	Val	Pro	Leu	Lys	Leu	Pro	Met	Pro	Glu	Pro	Gly	Glu	Leu	Glu
		20						25					30		
Glu	Arg	Phe	Ala	Ile	Val	Leu	Asn	Ala	Met	Asn	Leu	Pro	Pro	Asp	Lys
		35						40					45		
Ala	Arg	Leu	Leu	Arg	Gln	Tyr	Asp	Asn	Glu	Lys	Lys	Trp	Glu	Leu	Ile
		50				55					60				
Cys	Asp	Gln	Glu	Arg	Phe	Gln	Val	Lys	Asn	Pro	Pro	His	Thr	Tyr	Ile
65					70					75					80
Gln	Lys	Leu	Lys	Gly	Tyr	Leu	Asp	Pro	Ala	Val	Thr	Arg	Lys	Lys	Phe
			85						90					95	
Arg	Arg	Arg	Val	Gln	Glu	Ser	Thr	Gln	Val	Leu	Arg	Glu	Leu	Glu	Ile
			100					105					110		
Ser	Leu	Arg	Thr	Asn	His	Ile	Gly	Trp	Val	Arg	Glu	Phe	Leu	Asn	Glu
		115					120					125			
Glu	Asn	Lys	Gly	Leu	Asp	Val	Leu	Val	Glu	Tyr	Leu	Ser	Phe	Ala	Gln
		130				135					140				
Tyr	Ala	Val	Thr	Phe	Asp	Phe	Glu	Ser	Val	Glu	Ser	Thr	Val	Glu	Ser

145                      150                      155                      160  
 Ser Val Asp Lys Ser Lys Pro Trp Ser Arg Ser Ile Glu Asp Leu His  
                                  165                      170                      175  
 Arg Gly Ser Asn Leu Pro Ser Pro Val Gly Asn Ser Val Ser Arg Ser  
                                  180                      185                      190  
 Gly Arg His Ser Ala Leu Arg Tyr Asn Thr Leu Pro Ser Arg Arg Thr  
                                  195                      200                      205  
 Leu Lys Asn Ser Arg Leu Val Ser Lys Lys Asp Asp Val His Val Cys  
                                  210                      215                      220  
 Ile Met Cys Leu Arg Ala Ile Met Asn Tyr Gln Tyr Gly Phe Asn Met  
 225                                   230                                   235                                   240  
 Val Met Ser His Pro His Ala Val Asn Glu Ile Ala Leu Ser Leu Asn  
                                  245                                   250                                   255  
 Asn Lys Asn Pro Arg Thr Lys Ala Leu Val Leu Glu Leu Leu Ala Ala  
                                  260                                   265                                   270  
 Val Cys Leu Val Arg Gly Gly His Glu Ile Ile Leu Ser Ala Phe Asp  
                                  275                                   280                                   285  
 Asn Phe Lys Glu Val Cys Gly Glu Lys Gln Arg Phe Glu Lys Leu Met  
                                  290                                   295                                   300  
 Glu His Phe Arg Asn Glu Asp Asn Asn Ile Asp Phe Met Val Ala Ser  
 305                                   310                                   315                                   320  
 Met Gln Phe Ile Asn Ile Val Val His Ser Val Glu Asp Met Asn Phe  
                                  325                                   330                                   335  
 Arg Val His Leu Gln Tyr Glu Phe Thr Lys Leu Gly Leu Asp Glu Tyr  
                                  340                                   345                                   350  
 Leu Asp Lys Leu Lys His Thr Glu Ser Asp Lys Leu Gln Val Gln Ile  
                                  355                                   360                                   365  
 Gln Ala Tyr Leu Asp Asn Val Phe Asp Val Gly Ala Leu Leu Glu Asp  
                                  370                                   375                                   380  
 Ala Glu Thr Lys Asn Ala Ala  
 385                                   390

&lt;210&gt; 4095

&lt;211&gt; 253

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4095

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 60  
 aggggtcagat agtgggggggt gggttcagct ccactgtcca ggtgaggaaa ctgagggtga  
 120  
 agagagatca agtagcatcc ccagcgaaat ctgaggcctc tggaggcgcc tgtgcacgtg  
 180  
 tgtctggaag tgtgtgtcca ggcagcatat ctgcatgtgt gtgcctgtcc agacagcata  
 240  
 tctgtgcacg cgt  
 253

&lt;210&gt; 4096

&lt;211&gt; 83

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4096

Met Gly Gly Gly Glu Gln Ala Ser Ala Gly Arg Val Pro Lys Arg Gln  
 1 5 10 15  
 Pro Arg Glu Gln Gly Gln Ile Val Gly Gly Gly Phe Ser Ser Thr Val  
 20 25 30  
 Gln Val Arg Lys Leu Arg Leu Lys Arg Asp Gln Val Ala Ser Pro Ala  
 35 40 45  
 Lys Ser Glu Ala Ser Gly Gly Ala Cys Ala Arg Val Ser Gly Ser Val  
 50 55 60  
 Cys Pro Gly Ser Ile Ser Ala Cys Val Cys Leu Ser Arg Gln His Ile  
 65 70 75 80  
 Cys Ala Arg

&lt;210&gt; 4097

&lt;211&gt; 1385

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4097

tccggagccc ggagcccgga gccccgcgcg gggcagcccc ccggggagga gcctcgtgct  
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 ctgggacgcg tgccgcgcac tggcacggca ggggcgcgag ccaggctgca cgattcactg  
 120  
 cgtgctgtcc tcaattgttc tacaatgagt gccaaatctg ctatcagcaa ggaaattttt  
 180  
 gcacctcttg atgaaaggat gctgggagct gtccaagtca agaggaggac aaagaaaaag  
 240  
 attcctttct tggcaactgg aggtcaaggc gaatatattaa cttatatctg cctgtcagt  
 300  
 acaaacaaga aaccacaca ggcgtccatc acaaaggcca aacagtttga aggtccaca  
 360  
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 420  
 cctaattggg attcggcaga gtttgatttg ttgtttgaaa atgcttttga ccagtgggta  
 480  
 gccagcacag cgtcagaaaa atgcaccttc ttccagatcc tccaccatac ctgccagagg  
 540  
 tacctcacgg acaggaagcc agagtttatt aactgccaat ccaaattat gggaggaaac  
 600  
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 660  
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 720  
 agcggccagc agtttgaga aactgcgcac aagcttgcca tgaagcaca atgttgagaa  
 780  
 actgcctatc ctgggtgactc ttcttaagag aaactgaaga gtttggtcag cagtttttac  
 840  
 aagaattcgg gacctccgct tgcttctttt tttccaatat ttggacactt agagtgggtt  
 900  
 ttgttttttc ttttcagatg ttaatgtgaa agaaagggtg ttgcattttt acatttcct  
 960  
 aatgatcttg ctaataaatg ctacaatagc atcagcttca ttttgggttt ttgcctcctc  
 1020



ccactgtgtg tatgtgtgta tatgtatgtt ttgaatatgt tttctttatt aaaaaatatt  
 1080  
 tttttagtgg tgaatatgaa atttggacca aatgataaac tgcgctgagt ctaaactggc  
 1140  
 aacatgtatt tttttctctg atattaagca ggaaggcatt ttaatgtggt gacatcagat  
 1200  
 gttatttttc ctagatgaaa ataaaagtca agcagtgatt agtttcactc actgtcctag  
 1260  
 ctacacttaa tttgaagatt aaaattctac attgtggaaa acaattgaat ttattgggaa  
 1320  
 aaacagcagt cttagatttt gtccttgca tagtaatctt ttgcatgaac catcaccagc  
 1380  
 gttca  
 1385

<210> 4098

<211> 258

<212> PRT

<213> Homo sapiens

<400> 4098

Ser	Gly	Ala	Arg	Ser	Pro	Glu	Pro	Arg	Ala	Gly	Gln	Pro	Pro	Gly	Glu
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Glu	Pro	Arg	Ala	Leu	Gly	Arg	Val	Pro	Arg	Thr	Gly	Thr	Ala	Gly	Ala
			20					25					30		
Arg	Ala	Arg	Leu	His	Asp	Ser	Leu	Arg	Ala	Val	Leu	Thr	Cys	Ser	Thr
			35				40					45			
Met	Ser	Ala	Lys	Ser	Ala	Ile	Ser	Lys	Glu	Ile	Phe	Ala	Pro	Leu	Asp
			50				55				60				
Glu	Arg	Met	Leu	Gly	Ala	Val	Gln	Val	Lys	Arg	Arg	Thr	Lys	Lys	Lys
65					70					75				80	
Ile	Pro	Phe	Leu	Ala	Thr	Gly	Gly	Gln	Gly	Glu	Tyr	Leu	Thr	Tyr	Ile
			85					90						95	
Cys	Leu	Ser	Val	Thr	Asn	Lys	Lys	Pro	Thr	Gln	Ala	Ser	Ile	Thr	Lys
			100					105					110		
Val	Lys	Gln	Phe	Glu	Gly	Ser	Thr	Ser	Phe	Val	Arg	Arg	Ser	Gln	Trp
			115				120					125			
Met	Leu	Glu	Gln	Leu	Arg	Gln	Val	Asn	Gly	Ile	Asp	Pro	Asn	Gly	Asp
			130				135				140				
Ser	Ala	Glu	Phe	Asp	Leu	Leu	Phe	Glu	Asn	Ala	Phe	Asp	Gln	Trp	Val
145					150					155				160	
Ala	Ser	Thr	Ala	Ser	Glu	Lys	Cys	Thr	Phe	Phe	Gln	Ile	Leu	His	His
			165					170						175	
Thr	Cys	Gln	Arg	Tyr	Leu	Thr	Asp	Arg	Lys	Pro	Glu	Phe	Ile	Asn	Cys
			180					185					190		
Gln	Ser	Lys	Ile	Met	Gly	Gly	Asn	Ser	Ile	Leu	His	Ser	Ala	Ala	Asp
			195				200					205			
Ser	Val	Thr	Ser	Ala	Val	Gln	Lys	Ala	Ser	Gln	Ala	Leu	Asn	Glu	Arg
			210				215				220				
Gly	Glu	Arg	Leu	Gly	Arg	Ala	Glu	Glu	Lys	Thr	Glu	Asp	Leu	Lys	Asn
225					230					235				240	
Ser	Ala	Gln	Gln	Phe	Ala	Glu	Thr	Ala	His	Lys	Leu	Ala	Met	Lys	His
			245					250						255	

Lys Cys

<210> 4099  
 <211> 511  
 <212> DNA  
 <213> Homo sapiens

<400> 4099  
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 60  
 attagggaaa ggttttctgt gaaattacct tctgattgta gccacatgaa acacatcaac  
 120  
 ttaacaata aaaaattgta taatggaatt ggatcagggg gttcccaaaa ccccttcac  
 180  
 tgaggtttg caattcactg agaaggactc acaggactca gcagatagtc atacttgggg  
 240  
 ctttgattta ttacatttaa tacagcaaaa agacacaaag caacatttga gaaaggaaaa  
 300  
 ggtgcatgtg tcaaagtctg gaggaagcca ggcacaagct acaggagtca tctcctgtgt  
 360  
 agctagcagg atatgcttaa ttccccagc ctcaaatttt gacgacacat gtgcaatgtt  
 420  
 gtctacctta ccagagtttc attagaggct cagcacccat gttttcgatg gaggctagtc  
 480  
 acataggcaa cctctcctct ccttcacggt t  
 511

<210> 4100  
 <211> 100  
 <212> PRT  
 <213> Homo sapiens

<400> 4100  
 Met Glu Leu Asp Gln Gly Val Pro Lys Thr Pro Phe Thr Glu Val Trp  
 1 5 10 15  
 Gln Phe Thr Glu Lys Asp Ser Gln Asp Ser Ala Asp Ser His Thr Trp  
 20 25 30  
 Gly Phe Asp Leu Leu His Leu Ile Gln Gln Lys Asp Thr Lys Gln His  
 35 40 45  
 Leu Arg Lys Glu Lys Val His Val Ser Lys Ser Gly Gly Ser Gln Ala  
 50 55 60  
 Gln Ala Thr Gly Val Ile Ser Cys Val Ala Ser Arg Ile Cys Leu Ile  
 65 70 75 80  
 Pro Pro Ala Ser Asn Phe Asp Asp Thr Cys Ala Met Leu Ser Thr Leu  
 85 90 95  
 Pro Glu Phe His  
 100

<210> 4101  
 <211> 536  
 <212> DNA  
 <213> Homo sapiens

<400> 4101

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 120  
 ccaggaaaga tggcacacgg cagacgacga caggaaggac acctgtctcc cacccttccc  
 180  
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 240  
 cctcttgctc cacagcctgc aaggtctgag caggcaacgg ccctggggcg gtgaggcccc  
 300  
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 536

&lt;210&gt; 4102

&lt;211&gt; 106

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4102

Met	Cys	Leu	Leu	Ser	Trp	Thr	Arg	Ile	Ala	Val	Trp	Gly	Pro	Ser	Ala
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Arg	Val	Cys	Thr	Arg	Tyr	Lys	Ile	Gln	Glu	Arg	Trp	His	Thr	Ala	Asp
			20					25					30		
Asp	Asp	Arg	Lys	Asp	Thr	Cys	Ser	Pro	Pro	Phe	Pro	Gly	Pro	Arg	His
		35					40					45			
Val	Gln	Asn	Ser	Ser	Trp	Gly	Leu	Gln	Leu	Leu	Gly	Glu	Thr	Gln	Gly
	50					55					60				
Leu	Leu	Leu	His	Ser	Leu	Gln	Gly	Leu	Ser	Arg	Gln	Arg	Pro	Trp	Gly
65				70						75				80	
Gly	Glu	Ala	Pro	Ala	Trp	Ser	Leu	Pro	Ala	Pro	Pro	Met	Gln	Ala	Val
			85						90					95	
Glu	Gly	Arg	Thr	Arg	Arg	Arg	Thr	Arg	Arg						
			100					105							

&lt;210&gt; 4103

&lt;211&gt; 3040

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4103

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 cgcgcccaaga agatggacgg ggagtccgag gaggagcagg agtccgtgga caccggggag  
 120  
 gaggaggaag gcggtgacga gtctgacctg agttcggaat ccagcattaa gaagaaatct  
 180  
 caagaggaaa ggaaagaccg acagtccttg gataagccag ccaggaaaag gaggcggaga  
 240

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300  
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360  
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420  
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720  
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780  
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900 cgggcagtg c tnnccgggc caccactctc ggaggacgac aagctgcagg 960  
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 2580  
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 2760  
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 3040

&lt;210&gt; 4104

&lt;211&gt; 978

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4104

Xaa	Ala	Ala	Phe	Pro	Thr	Glu	Asp	Ser	Arg	Thr	Ser	Lys	Glu	Ser	Met
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Ser	Glu	Ala	Asp	Arg	Ala	Gln	Lys	Met	Asp	Gly	Glu	Ser	Glu	Glu	Glu
		20					25					30			
Gln	Glu	Ser	Val	Asp	Thr	Gly	Glu	Glu	Glu	Gly	Gly	Asp	Glu	Ser	
		35				40					45				
Asp	Leu	Ser	Ser	Glu	Ser	Ser	Ile	Lys	Lys	Lys	Ser	Gln	Glu	Glu	Arg
	50					55					60				
Lys	Asp	Arg	Gln	Ser	Leu	Asp	Lys	Pro	Ala	Arg	Lys	Arg	Arg	Arg	Arg

65					70					75				80
Ser	Arg	Lys	Lys	Pro	Ser	Gly	Ala	Leu	Gly	Ser	Glu	Ser	Tyr	Lys
				85					90					95
Ser	Ala	Gly	Ser	Ala	Glu	Gln	Thr	Ala	Pro	Gly	Asp	Ser	Thr	Gly
			100					105					110	
Met	Glu	Val	Ser	Leu	Asp	Ser	Leu	Asp	Leu	Arg	Val	Lys	Gly	Ile
		115					120					125		
Ser	Ser	Gln	Ala	Glu	Gly	Leu	Ala	Asn	Gly	Pro	Asp	Val	Leu	Glu
		130					135				140			
Asp	Gly	Leu	Gln	Glu	Val	Pro	Leu	Cys	Ser	Cys	Arg	Met	Glu	Thr
145					150					155				160
Lys	Ser	Arg	Glu	Ile	Thr	Thr	Leu	Ala	Asn	Asn	Gln	Cys	Met	Ala
				165					170					175
Glu	Ser	Val	Asp	His	Glu	Leu	Gly	Arg	Cys	Thr	Asn	Ser	Val	Val
		180						185					190	
Tyr	Glu	Leu	Met	Arg	Pro	Ser	Asn	Lys	Ala	Pro	Leu	Leu	Val	Leu
		195					200					205		
Glu	Asp	His	Arg	Gly	Arg	Met	Val	Lys	His	Gln	Cys	Cys	Pro	Gly
		210					215				220			
Gly	Tyr	Phe	Cys	Thr	Ala	Gly	Asn	Phe	Met	Glu	Cys	Gln	Pro	Glu
225					230					235				240
Ser	Ile	Ser	His	Arg	Phe	His	Lys	Asp	Cys	Ala	Ser	Arg	Val	Asn
				245					250					255
Ala	Ser	Tyr	Cys	Pro	His	Cys	Gly	Glu	Glu	Ser	Ser	Lys	Ala	Lys
			260					265					270	
Val	Thr	Ile	Ala	Lys	Ala	Asp	Thr	Thr	Ser	Thr	Val	Thr	Pro	Val
		275					280					285		
Gly	Gln	Glu	Lys	Gly	Ser	Ala	Xaa	Gly	Gly	Arg	Ala	Asp	Thr	Thr
		290				295					300			
Gly	Ser	Ala	Xaa	Pro	Gly	His	His	Ser	Arg	Arg	Thr	Thr	Ser	Cys
305					310					315				320
Val	Gln	Pro	Pro	Thr	Xaa	Pro	Glu	Gly	Phe	Asp	Pro	Thr	Gly	Pro
				325					330					335
Gly	Leu	Gly	Arg	Pro	Thr	Pro	Gly	Leu	Ser	Gln	Gly	Pro	Gly	Lys
			340					345					350	
Thr	Leu	Glu	Ser	Ala	Leu	Ile	Ala	Leu	Asp	Ser	Glu	Lys	Pro	Lys
		355					360					365		
Leu	Arg	Phe	His	Pro	Lys	Gln	Leu	Tyr	Phe	Ser	Ala	Arg	Gln	Gly
		370				375					380			
Leu	Gln	Lys	Val	Leu	Leu	Met	Leu	Val	Asp	Gly	Ile	Asp	Pro	Asn
385					390					395				400
Lys	Met	Glu	His	Gln	Asn	Lys	Arg	Ser	Pro	Leu	His	Ala	Ala	Glu
				405					410					415
Ala	Gly	His	Val	Asp	Ile	Cys	His	Met	Leu	Val	Gln	Ala	Gly	Ala
			420					425					430	
Ile	Asp	Thr	Cys	Ser	Glu	Asp	Gln	Arg	Thr	Pro	Leu	Met	Glu	Ala
		435					440					445		
Glu	Asn	Asn	His	Leu	Glu	Ala	Val	Lys	Tyr	Leu	Ile	Lys	Ala	Gly
		450				455					460			
Leu	Val	Asp	Pro	Lys	Asp	Ala	Glu	Gly	Ser	Thr	Cys	Leu	His	Leu
465					470					475				480
Ala	Lys	Lys	Gly	His	Tyr	Glu	Val	Val	Gln	Tyr	Leu	Leu	Ser	Asn
				485					490					495
Arg	Met	Asp	Val	Asn	Cys	Gln	Asp	Asp	Gly	Gly	Trp	Thr	Pro	Met

3289

930                      935                      940  
 Gly Pro Pro Arg Arg Arg Leu Glu Asp Glu Glu Glu Arg Phe Arg Thr  
 945                      950                      955                      960  
 Gln Pro Lys Gly Ser Phe Gly Ala Ala Pro Pro Ala Ser Trp Arg Gly  
                          965                      970                      975  
 Arg Arg

<210> 4105  
 <211> 775  
 <212> DNA  
 <213> Homo sapiens

<400> 4105  
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 120  
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 180  
 ggcggtggcg tggcctaccg cagcctgggc cgcttcgagc aactgggcaa gacggccgcc  
 240  
 tcctggtgcc tgcactcaac aattggctgc aggtcagctt cacggaagca cgccaacaag  
 300  
 gtcaagggtgc tggacgcccc cgtgccccgac tgcttgggtg tgcactgtga cttccaccaa  
 360  
 ggctctctgt ccttctacaa tgcccgcacc aaacaagtgc tgcacacttt caagaccagg  
 420  
 ttcacacagc cgctgctgcc tgctttcacg gtatgggtgt gcagcttcca ggtgacgaca  
 480  
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 540  
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 600  
 gtcgcccga agcccaggct gctggagcca ggcacctcc tctgtcactt gctgcttggg  
 660  
 gccttaactc cagatggggg ggtcaccaag agggagtggg caccctggcg ggccctctcc  
 720  
 ccacctcacc tcttaataaa ggtcagacac tggccaggca aaaaaaaaaa aaata  
 775

<210> 4106  
 <211> 186  
 <212> PRT  
 <213> Homo sapiens

<400> 4106  
 Xaa Arg Ala Ser Pro Ile Asn Ser Pro Ala Arg Gly Thr Pro Ser Pro  
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 Lys Arg Met Pro Ser Gly Arg Gly Gly Arg Asp Arg Phe Thr Ala Glu  
                          20                      25                      30  
 Ser Tyr Thr Val Leu Gly Asp Thr Leu Ile Asp Gly Gly Glu His Tyr  
                          35                      40                      45  
 Trp Glu Val Arg Tyr Glu Pro Asp Ser Lys Ala Phe Gly Val Gly Val



50                      55                      60  
 Ala Tyr Arg Ser Leu Gly Arg Phe Glu Gln Leu Gly Lys Thr Ala Ala  
 65                      70                      75                      80  
 Ser Trp Cys Leu His Ser Thr Ile Gly Cys Arg Ser Ala Ser Arg Lys  
                     85                      90                      95  
 His Ala Asn Lys Val Lys Val Leu Asp Ala Pro Val Pro Asp Cys Leu  
                     100                      105                      110  
 Gly Val His Cys Asp Phe His Gln Gly Leu Leu Ser Phe Tyr Asn Ala  
                     115                      120                      125  
 Arg Thr Lys Gln Val Leu His Thr Phe Lys Thr Arg Phe Thr Gln Pro  
                     130                      135                      140  
 Leu Leu Pro Ala Phe Thr Val Trp Cys Gly Ser Phe Gln Val Thr Thr  
 145                      150                      155                      160  
 Gly Leu Gln Val Pro Ser Ala Val Arg Cys Leu Gln Lys Arg Gly Ser  
                     165                      170                      175  
 Ala Thr Ser Ser Ser Asn Thr Ser Leu Thr  
                     180                      185

&lt;210&gt; 4107

&lt;211&gt; 1442

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4107

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 120  
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 180  
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 360  
 aattacggca tgaccgcgat ggaccctac tgccgactgc gcctgggcta cgcggtgtac  
 420  
 gagacgcca cgacacaaa tggcgccaag aatccccgct ggaataaggt catccactgc  
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 720  
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 840  
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 900

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 960  
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 1380  
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 1440  
 aa  
 1442

&lt;210&gt; 4108

&lt;211&gt; 273

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4108

Met	Ala	Thr	Thr	Val	Ser	Thr	Gln	Arg	Gly	Pro	Val	Tyr	Ile	Gly	Glu
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Leu	Pro	Gln	Asp	Phe	Leu	Arg	Ile	Thr	Pro	Thr	Gln	Gln	Gln	Arg	Gln
			20					25					30		
Val	Gln	Leu	Asp	Ala	Gln	Ala	Pro	Ser	Ser	Cys	Ser	Thr	Glu	Ala	Gln
		35					40					45			
Gly	Thr	Val	Gly	Arg	Leu	Asn	Ile	Thr	Val	Val	Gln	Ala	Lys	Leu	Ala
	50					55					60				
Lys	Asn	Tyr	Gly	Met	Thr	Arg	Met	Asp	Pro	Tyr	Cys	Arg	Leu	Arg	Leu
65					70					75				80	
Gly	Tyr	Ala	Val	Tyr	Glu	Thr	Pro	Thr	Ala	His	Asn	Gly	Ala	Lys	Asn
			85						90					95	
Pro	Arg	Trp	Asn	Lys	Val	Ile	His	Cys	Thr	Val	Pro	Pro	Gly	Val	Asp
			100					105					110		
Ser	Phe	Tyr	Leu	Glu	Ile	Phe	Asp	Glu	Arg	Ala	Phe	Ser	Met	Asp	Asp
		115					120					125			
Arg	Ile	Ala	Trp	Thr	His	Ile	Thr	Ile	Pro	Glu	Ser	Leu	Arg	Gln	Gly
	130					135						140			
Lys	Val	Glu	Asp	Lys	Trp	Tyr	Ser	Leu	Ser	Gly	Arg	Gln	Gly	Asp	Asp
145				150						155				160	
Lys	Glu	Gly	Met	Ile	Asn	Leu	Val	Met	Ser	Tyr	Ala	Leu	Leu	Pro	Ala
			165					170						175	
Ala	Met	Val	Met	Pro	Pro	Gln	Pro	Val	Val	Leu	Met	Pro	Thr	Val	Tyr
			180					185					190		
Gln	Gln	Gly	Val	Gly	Tyr	Val	Pro	Ile	Thr	Gly	Met	Pro	Ala	Val	Cys
		195					200					205			
Ser	Pro	Gly	Met	Val	Pro	Val	Ala	Leu	Pro	Pro	Ala	Ala	Val	Asn	Ala

210	215	220
Gln Pro Arg Cys Ser Glu Glu Asp Leu Lys Ala Ile Gln Asp Met Phe		
225	230	235
Pro Asn Met Asp Gln Glu Val Ile Arg Ser Val Leu Glu Ala Gln Arg		240
	245	250
Gly Asn Lys Asp Ala Ala Ile Asn Ser Leu Leu Gln Met Gly Glu Glu		255
	260	265
Pro		270

&lt;210&gt; 4109

&lt;211&gt; 1637

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4109

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 60  
 ggcttgagaga tccccgccta tagcaggtgg caggatccca tttctcact ggcgactccc  
 120  
 ctgcgtgctg gtgaagaagg cagccacagt cggaagtgcg tgtgcagaag cagagaggag  
 180  
 ctgcggggga aggtccggga gctggccagc gccgtccgga acgccaaata cttggtcgtc  
 240  
 tacacaggcg cggaatcag cacggcagcg tctatcccag actaccgggg ccctaattgga  
 300  
 gtgtggacac tgcttcagaa agggagaagc gttagtgtg cgcacctgag cgaggccgag  
 360  
 ccaaccctca cccacatgag catcacccgt ctgcatgagc agaagctggt gcagcatgtg  
 420  
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 tgccacaagt gtgggaccca gctgcgggac accattgtgc actttgggga gagggggacg  
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 900  
 ctgggcttgg agatccccgc ctatagcagg tggcaggatc ccattttctc actggcgact  
 960  
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<211> 375

<212> PRT

<213> Homo sapiens

<400> 4110

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Tyr	Thr	Gly	Ala	Gly	Ile	Ser	Thr	Ala	Ala	Ser	Ile	Pro	Asp	Tyr	Arg
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His	Arg	His	Gln	Thr	Gly	Arg	Thr	Cys	His	Lys	Cys	Gly	Thr	Gln	Leu
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Trp Cys Met Thr Lys Pro Pro Ala Gly Gly Arg Leu Tyr Ile Val Asn						
	260		265		270	
Leu Gln Trp Thr Pro Lys Asp Asp Trp Ala Ala Leu Lys Leu His Gly						
	275		280		285	
Lys Cys Asp Asp Val Met Arg Leu Leu Met Ala Glu Leu Gly Leu Glu						
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Pro Leu Arg Ala Gly Glu Glu Gly Ser His Ser Arg Lys Ser Leu Cys						
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&lt;210&gt; 4111

&lt;211&gt; 2599

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4111

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<212> PRT

<213> Homo sapiens

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Asp	Thr	Arg	Arg	Leu	Ser	Phe	Leu	Val	Ser	Tyr	Ile	Ala	Ser	Lys	Lys
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Ile	His	Thr	Glu	Pro	Gln	Leu	Ser	Ala	Ala	Leu	Glu	Tyr	Val	Arg	Ser
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Ala	Ile	Asn	Arg	His	Arg	Pro	Gln	Leu	Leu	Val	Glu	Arg	Tyr	His	Phe
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Asn	Met	Gly	Leu	Leu	Met	Gly	Glu	Ala	Arg	Ala	Val	Leu	Lys	Trp	Ala
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Cys Ile Tyr Pro Thr Tyr Asp Tyr Thr His Cys Leu Cys Asp Ser Ile
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Pro Gly Phe Lys Arg Leu Ala Trp Gly Gln Pro Val Gly Leu Arg His
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&lt;210&gt; 4114

&lt;211&gt; 389

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4114

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Lys	Ala	Leu	Cys	Thr	Ala	His	Glu	Lys	Phe	Cys	Phe	Trp	Pro	Asp	Ser
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Pro	Ser	Pro	Asp	Arg	Phe	Gly	Met	Leu	Pro	Leu	Asp	Glu	Pro	Ala	Ile
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Thr	Glu	Asp	Lys	Ile	Ser	Leu	Leu	Leu	His	Leu	Leu	Glu	Asp	Glu	Leu
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&lt;211&gt; 1056

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4115

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 <213> Homo sapiens

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 Pro Thr Leu Gly Ser Ser Asn Asn Gln Leu Asn Ser Ser Leu Leu Gln  
 50 55 60  
 Val Tyr Ile Pro Asp Tyr Ser Val Arg Ala Leu Ser Asp Leu Gln Phe  
 65 70 75 80  
 Val Lys Ile Ser Arg Gln Gln Tyr Gln Asn Ala Leu Met Ala Ser Arg  
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 Met Asp Lys Thr Pro Gln Ser Ser Asp Ser Glu Asn Thr Lys Ile Glu  
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 Leu Thr Leu Thr Glu Leu His Asp Gly Leu Pro Asp Glu Thr Ala Asn  
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<210> 4117  
 <211> 973  
 <212> DNA  
 <213> Homo sapiens

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&lt;210&gt; 4118

&lt;211&gt; 128

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4118

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	20						25					30			
Gly	Cys	Gly	Arg	Trp	Pro	Gln	Pro	Pro	Gly	Gly	Ile	Leu	Glu	Trp	Glu
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	50					55					60				
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65					70					75				80	
Pro	Leu	Arg	Ser	Pro	Arg	Thr	Leu	Pro	Leu	Glu	Leu	Gly	Thr	Gly	Gly
			85						90					95	
Cys	Val	Cys	Ala	Gly	Leu	Gly	Pro	Asn	Thr	Pro	Gly	Cys	Gln	Leu	His
	100							105					110		
Pro	Pro	Ala	Val	Leu	Cys	Pro	Gln	Gly	Leu	Gly	Arg	His	Gln	Arg	Leu
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&lt;210&gt; 4119

&lt;211&gt; 649

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

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<210> 4120  
 <211> 100  
 <212> PRT  
 <213> Homo sapiens

<400> 4120  
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 20 25 30  
 Cys Ile Leu Val Ser Ile Val Thr Glu Phe Val Ser Asn Pro Ala Thr  
 35 40 45  
 Ile Thr Ile Phe Leu Pro Ile Leu Cys Ser Leu Val Ser Asn Ala Glu  
 50 55 60  
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<210> 4121  
 <211> 2490  
 <212> DNA  
 <213> Homo sapiens

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&lt;210&gt; 4122

&lt;211&gt; 494

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4122

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Phe	Gly	Leu	Gly	Leu	Gly	Leu	Ile	Glu	Glu	Lys	Gln	Ala	Glu	Ser	Arg
		20						25					30		
Arg	Ala	Val	Ser	Ala	Cys	Gln	Glu	Ile	Gln	Ala	Ile	Phe	Thr	Gln	Lys
		35					40					45			
Ser	Lys	Pro	Gly	Pro	Asp	Pro	Leu	Asp	Thr	Arg	Arg	Leu	Gln	Gly	Phe
	50				55					60					
Arg	Leu	Glu	Glu	Tyr	Leu	Ile	Gly	Gln	Ser	Ile	Gly	Lys	Gly	Cys	Ser
65				70					75					80	
Ala	Ala	Val	Tyr	Glu	Ala	Thr	Met	Pro	Thr	Leu	Pro	Gln	Asn	Leu	Glu
			85				90						95		
Val	Thr	Lys	Ser	Thr	Gly	Leu	Leu	Pro	Gly	Arg	Gly	Pro	Gly	Thr	Ser
		100					105					110			
Ala	Pro	Gly	Glu	Gly	Gln	Glu	Arg	Ala	Pro	Gly	Ala	Pro	Ala	Phe	Pro
		115				120						125			
Leu	Ala	Ile	Lys	Met	Met	Trp	Asn	Ile	Ser	Ala	Gly	Ser	Ser	Ser	Glu
	130					135					140				
Ala	Ile	Leu	Asn	Thr	Met	Ser	Gln	Glu	Leu	Val	Pro	Ala	Ser	Arg	Val



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 Ala Leu Ala Gly Glu Tyr Gly Ala Val Thr Tyr Arg Lys Ser Lys Arg  
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 Gly Pro Lys Gln Leu Ala Pro His Pro Asn Ile Ile Arg Val Leu Arg  
                                  180                      185                      190  
 Ala Phe Thr Ser Ser Val Pro Leu Leu Pro Gly Ala Leu Val Asp Tyr  
                                  195                      200                      205  
 Pro Asp Val Leu Pro Ser Arg Leu His Pro Glu Gly Leu Gly His Gly  
                                  210                      215                      220  
 Arg Thr Leu Phe Leu Val Met Lys Asn Tyr Pro Cys Thr Leu Arg Gln  
 225                                   230                      235                      240  
 Tyr Leu Cys Val Asn Thr Pro Ser Pro Arg Leu Ala Ala Met Met Leu  
                                  245                      250                      255  
 Leu Gln Leu Leu Glu Gly Val Asp His Leu Val Gln Gln Gly Ile Ala  
                                  260                      265                      270  
 His Arg Asp Leu Lys Ser Asp Asn Ile Leu Val Glu Leu Asp Pro Asp  
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 Gly Cys Pro Trp Leu Val Ile Ala Asp Phe Gly Cys Cys Leu Ala Asp  
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 Glu Ser Ile Gly Leu Gln Leu Pro Phe Ser Ser Trp Tyr Val Asp Arg  
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                                  325                      330                      335  
 Gly Pro Arg Ala Val Ile Asp Tyr Ser Lys Ala Asp Ala Trp Ala Val  
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 Gly Ala Ile Ala Tyr Glu Ile Phe Gly Leu Val Asn Pro Phe Tyr Gly  
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 Gln Gly Lys Ala His Leu Glu Ser Arg Ser Tyr Gln Glu Ala Gln Leu  
 370                                   375                      380  
 Pro Ala Leu Pro Glu Ser Val Pro Pro Asp Val Arg Gln Leu Val Arg  
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 Ala Asn Val Leu His Leu Ser Leu Trp Gly Glu His Ile Leu Ala Leu  
                                  420                      425                      430  
 Lys Asn Leu Lys Leu Asp Lys Met Val Gly Trp Leu Leu Gln Gln Ser  
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 Ala Ala Thr Leu Leu Ala Asn Arg Leu Thr Glu Lys Cys Cys Val Glu  
                                  450                      455                      460  
 Thr Lys Met Lys Met Leu Phe Leu Ala Asn Leu Glu Cys Glu Thr Leu  
 465                                   470                      475                      480  
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                                  485                      490

&lt;210&gt; 4123

&lt;211&gt; 1095

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4123

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&lt;210&gt; 4124

&lt;211&gt; 155

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4124

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Glu	Glu	Leu	Leu	Ser	Leu	Arg	Phe	Pro	Leu	His	Arg	Ala	Cys	Arg	Asp
			20					25					30		
Gly	Asp	Leu	Ala	Thr	Leu	Cys	Ser	Leu	Leu	Gln	Gln	Thr	Pro	His	Ala
		35					40					45			
His	Leu	Ala	Ser	Glu	Asp	Ser	Phe	Tyr	Gly	Trp	Thr	Pro	Val	His	Trp
		50				55					60				
Ala	Ala	His	Phe	Gly	Lys	Leu	Glu	Cys	Leu	Val	Gln	Leu	Val	Arg	Ala
		65			70				75					80	
Gly	Ala	Thr	Leu	Asn	Val	Ser	Thr	Thr	Arg	Tyr	Ala	Gln	Thr	Pro	Ala
			85					90						95	
His	Ile	Ala	Ala	Phe	Gly	Gly	His	Pro	Gln	Cys	Leu	Val	Trp	Leu	Ile

	100		105		110										
Gln	Ala	Gly	Ala	Asn	Ile	Asn	Lys	Pro	Asp	Cys	Glu	Gly	Glu	Thr	Pro
	115					120					125				
Ile	His	Lys	Ala	Ala	Arg	Ser	Gly	Ser	Leu	Glu	Cys	Ile	Ser	Ala	Leu
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Val	Ala	Asn	Gly	Ala	His	Val	Asp	Ser	Gln	His					
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&lt;210&gt; 4125

&lt;211&gt; 4711

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4125

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<211> 820

<212> PRT

<213> Homo sapiens

<400> 4126

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Tyr	Glu	Thr	Cys	Lys	Ile	Arg	Thr	Ile	Lys	Ala	Gly	Thr	Leu	Glu	Lys
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Val	Leu	Glu	Leu	Leu	Asp	Arg	Tyr	Gly	Asn	Leu	Thr	Ser	Pro	Asn	
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Arg	Asn	Ala	Ile	Ala	Ser	Ile	Leu	Arg	Ala	Trp	Leu	Asp	Gln	Cys	Ala
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Glu	Asp	Phe	Arg	Glu	Pro	Pro	His	Phe	Pro	Cys	Leu	Gln	Lys	Leu	Leu
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Glu Gly Thr Ser Lys Phe Ala Asn Leu Asp Ser Ser Val Lys Glu Asn		430
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Phe Glu Lys Arg Arg Arg Glu Phe Glu Val Ile Ala Gln Ile Lys Leu		495
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Gly Ser Asp Met Ile Thr Ser Pro Thr Pro Thr Lys Glu Gln Pro Lys		575
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Pro Met Asp Thr Pro Asp Glu Pro Gln Lys Lys Leu Ser Glu Ser Ser		620
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Ser Ser Cys Ser Ser Ile His Ser Met Asp Thr Asn Ser Ser Gly Met		640
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Pro Lys Ile His Lys Arg Ser Val Ser Val Thr Ser Ile Thr Ser Thr		670
	675	680
Val Leu Pro Pro Val Tyr Asn Gln Gln Asn Glu Asp Thr Cys Ile Ile		685
	690	695
Arg Ile Ser Val Glu Asp Asn Asn Gly Asn Met Tyr Lys Ser Ile Met		700
705	710	715
Leu Thr Ser Gln Asp Lys Thr Pro Ala Val Ile Gln Arg Ala Met Leu		720

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Lys His Asn Leu Asp Ser Asp Pro Ala Glu Glu Tyr Glu Leu Val Gln					
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Val Ile Ser Glu Asp Lys Glu Leu Val Ile Pro Asp Ser Ala Asn Val					
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Phe Tyr Ala Met Asn Ser Gln Val Asn Phe Asp Phe Ile Leu Arg Lys					
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&lt;210&gt; 4128

&lt;211&gt; 445

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4128

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 Val Lys Leu Glu Pro Gly Val Asn Pro Ser His Leu Met Asn Leu Phe  
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 Thr Tyr Glu Lys Gly Tyr Cys Phe Val Tyr Tyr Leu Ser Gln Leu Cys  
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&lt;210&gt; 4129

&lt;211&gt; 1749

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4129

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&lt;210&gt; 4130

&lt;211&gt; 523

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4130

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 Ser Cys Glu Leu Asp Leu Val Tyr Val Thr Glu Arg Ile Ile Ala Val  
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 Ser Phe Pro Ser Thr Ala Asn Glu Glu Asn Phe Arg Ser Asn Leu Arg  
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 130 135 140  
 Val Leu Glu Phe Gly Trp Pro Asp Leu His Thr Pro Ala Leu Glu Lys  
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 His Asn Val Val Val Leu His Asn Lys Gly Asn Arg Gly Arg Ile Gly  
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 Val Val Ile Ala Ala Tyr Met His Tyr Ser Asn Ile Ser Ala Ser Ala  
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608

&lt;210&gt; 4132

&lt;211&gt; 194

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4132

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Leu Ala Pro Glu Ala Ala Gly Thr Ser Thr Pro Glu Met Arg Arg Ser
      20           25           30
Val Leu Val Arg Asn Pro Gly His Lys Gly Leu Arg Pro Val Tyr Glu
      35           40           45
Glu Leu Asp Ser Asp Ser Glu Asp Leu Asp Pro Asn Pro Glu Asp Leu
 50           55           60
Asp Pro Val Ser Glu Asp Pro Glu Pro Asp Pro Glu Asp Leu Asn Thr
65           70           75           80
Val Pro Glu Asp Val Asp Pro Ser Tyr Glu Asp Leu Glu Pro Val Ser
      85           90           95
Glu Asp Leu Asp Pro Asp Ala Glu Ala Pro Gly Ser Glu Pro Gln Asp
      100           105           110
Pro Asp Pro Met Ser Ser Ser Phe Asp Leu Asp Pro Asp Val Ile Gly
      115           120           125
Pro Val Pro Leu Ile Leu Asp Pro Asn Ser Asp Thr Leu Ser Pro Gly
      130           135           140
Asp Pro Lys Val Asp Pro Xaa Ser Pro Leu Ala Ser Leu Arg Ala Pro
145           150           155           160
Arg Ser Trp Pro Pro Ala Pro Arg Cys Ser Pro Pro Pro Pro Ala Arg
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Pro Gly Pro Ser Pro Ala Arg Ile Ala Ala Lys Pro Ser Ala Ala Ala
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Pro Gly

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&lt;210&gt; 4133

&lt;211&gt; 1646

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4133

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360

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1646

&lt;210&gt; 4134

&lt;211&gt; 329

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4134

Met	Glu	Val	Ala	Glu	Pro	Ser	Ser	Pro	Thr	Glu	Glu	Glu	Glu	Glu	Glu
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<211> 388
<212> DNA
<213> Homo sapiens
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180
catggatctt gaggaccac gaccaatctt tgactggatg cagatcatcc gcaaacgggc
240
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 300  
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<210> 4136

<211> 123

<212> PRT

<213> Homo sapiens

<400> 4136

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Arg	Ser	Ala	Val	Arg	Tyr	Asp	Lys	Thr	Tyr	Phe	Asp	Lys	Ile	Val	Ala
		20					25					30			
Ser	Leu	Leu	Pro	Leu	Leu	Glu	Lys	Leu	Thr	Thr	Gly	Arg	Ile	Ala	Glu
	35					40					45				
Leu	Leu	Ser	Pro	Asp	Tyr	Met	Asp	Leu	Glu	Asp	Pro	Arg	Pro	Ile	Phe
50					55			60							
Asp	Trp	Met	Gln	Ile	Ile	Arg	Lys	Arg	Ala	Val	Val	Tyr	Val	Gly	Leu
65			70					75				80			
Asp	Ala	Leu	Ser	Asp	Thr	Glu	Val	Ala	Ala	Ala	Val	Gly	Asn	Ser	Met
		85					90					95			
Phe	Ser	Asp	Leu	Val	Ser	Val	Ala	Gly	His	Ile	Tyr	Lys	Phe	Gly	Ile
		100					105					110			
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<210> 4137

<211> 2255

<212> DNA

<213> Homo sapiens

<400> 4137

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<210> 4138  
 <211> 353  
 <212> PRT  
 <213> Homo sapiens

<400> 4138

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			20					25					30		
Asn	Val	Glu	Ala	Val	Asp	Pro	Arg	Gly	Arg	Thr	Leu	Leu	His	Leu	Ala
			35				40					45			
Val	Ser	Leu	Gly	His	Leu	Glu	Ser	Ala	Arg	Val	Leu	Leu	Arg	His	Lys
	50					55				60					
Ala	Asp	Val	Thr	Lys	Glu	Asn	Arg	Gln	Gly	Trp	Thr	Val	Leu	His	Glu
65				70						75				80	
Ala	Val	Ser	Thr	Gly	Asp	Pro	Glu	Met	Val	Tyr	Thr	Val	Leu	Gln	His
			85						90					95	
Arg	Asp	Tyr	His	Asn	Thr	Ser	Met	Ala	Leu	Glu	Gly	Val	Pro	Glu	Leu
			100					105					110		
Leu	Gln	Lys	Ile	Leu	Glu	Ala	Pro	Asp	Phe	Tyr	Val	Gln	Met	Lys	Trp
	115						120					125			
Glu	Phe	Thr	Ser	Trp	Val	Pro	Leu	Val	Ser	Arg	Ile	Cys	Pro	Asn	Asp
	130						135				140				
Val	Cys	Arg	Ile	Trp	Lys	Ser	Gly	Ala	Lys	Leu	Arg	Val	Asp	Ile	Thr
145				150						155				160	
Leu	Leu	Gly	Phe	Glu	Asn	Met	Ser	Trp	Ile	Arg	Gly	Arg	Arg	Ser	Phe
			165					170						175	
Ile	Phe	Lys	Gly	Glu	Asp	Asn	Trp	Ala	Glu	Leu	Met	Glu	Val	Asn	His
		180						185					190		
Asp	Asp	Lys	Val	Val	Thr	Thr	Glu	Arg	Phe	Asp	Leu	Ser	Gln	Glu	Met
		195					200						205		
Glu	Arg	Leu	Thr	Leu	Asp	Leu	Met	Lys	Pro	Lys	Ser	Arg	Glu	Val	Glu
	210					215					220				
Arg	Arg	Leu	Thr	Ser	Pro	Val	Ile	Asn	Thr	Ser	Leu	Asp	Thr	Lys	Asn
225					230					235				240	
Ile	Ala	Phe	Glu	Arg	Thr	Lys	Ser	Gly	Phe	Trp	Gly	Trp	Arg	Thr	Asp
			245						250					255	
Lys	Ala	Glu	Val	Val	Asn	Gly	Tyr	Glu	Ala	Lys	Val	Tyr	Thr	Val	Asn
		260						265					270		
Asn	Val	Asn	Val	Ile	Thr	Lys	Ile	Arg	Thr	Glu	His	Leu	Thr	Glu	Glu
		275					280					285			
Glu	Lys	Lys	Arg	Tyr	Lys	Ala	Asp	Arg	Asn	Pro	Leu	Glu	Ser	Leu	Leu
	290					295					300				
Gly	Thr	Val	Glu	His	Gln	Phe	Gly	Ala	Gln	Gly	Asp	Leu	Thr	Thr	Glu
305				310						315				320	
Cys	Ala	Thr	Ala	Asn	Asn	Pro	Thr	Ala	Ile	Thr	Pro	Asp	Glu	Tyr	Phe
			325					330					335		
Asn	Glu	Glu	Phe	Asp	Leu	Xaa	Arg	Gln	Gly	His	Trp	Xaa	Gly	Arg	Lys

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Ser

<210> 4139  
 <211> 431  
 <212> DNA  
 <213> Homo sapiens

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 240  
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<210> 4140  
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 <212> PRT  
 <213> Homo sapiens

<400> 4140  
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<210> 4141  
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 660  
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 720  
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 780  
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 1182

&lt;210&gt; 4142

&lt;211&gt; 311

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4142

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1			5						10					15	
Asp	Asp	Ala	Asn	Lys	Lys	Trp	Val	Pro	Ala	Gly	Gly	Ser	Thr	Gly	Phe
		20						25					30		
Ser	Arg	Val	His	Ile	Tyr	His	His	Thr	Gly	Asn	Asn	Thr	Phe	Arg	Val
		35					40					45			
Val	Gly	Arg	Lys	Ile	Gln	Asp	His	Gln	Val	Val	Ile	Asn	Cys	Ala	Ile
		50				55				60					
Pro	Lys	Gly	Leu	Lys	Tyr	Asn	Gln	Ala	Thr	Gln	Thr	Phe	His	Gln	Trp
		65			70				75					80	
Arg	Asp	Ala	Arg	Gln	Val	Tyr	Gly	Leu	Asn	Phe	Gly	Ser	Lys	Glu	Asp
			85					90						95	
Ala	Asn	Val	Phe	Ala	Ser	Ala	Met	Met	His	Ala	Leu	Glu	Val	Leu	Asn

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      130      135      140
Arg Gln Leu Gln Glu Gln Gln Arg Gln Lys Glu Leu Glu Arg Glu Arg
      145      150      155      160
Leu Glu Arg Glu Arg Met Glu Arg Glu Arg Leu Glu Arg Glu Arg Leu
      165      170      175
Glu Arg Glu Arg Leu Glu Arg Glu Arg Leu Glu Gln Glu Gln Leu Glu
      180      185      190
Arg Glu Arg Gln Glu Arg Glu Arg Gln Glu Arg Leu Glu Arg Gln Glu
      195      200      205
Arg Leu Glu Arg Gln Glu Arg Leu Glu Arg Gln Glu Arg Leu Asp Arg
      210      215      220
Glu Arg Glu Arg Gln Glu Arg Glu Arg Leu Glu Arg Leu Glu Arg Glu
      225      230      235      240
Arg Gln Glu Arg Glu Arg Gln Glu Gln Leu Glu Arg Glu Gln Leu Glu
      245      250      255
Trp Glu Arg Glu Arg Arg Ile Ser Ser Ala Ala Ala Pro Ala Ser Val
      260      265      270
Glu Thr Pro Leu Asn Ser Val Leu Gly Asp Ser Ser Ala Ser Glu Pro
      275      280      285
Gly Leu Gln Ala Ala Ser Gln Pro Ala Glu Thr Pro Ser Gln Gln Gly
      290      295      300
Ile Val Leu Gly Pro Leu Ala
      305      310

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&lt;210&gt; 4143

&lt;211&gt; 1773

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4143

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420
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540
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600

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<210> 4144

<211> 231

<212> PRT

<213> Homo sapiens

<400> 4144

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				20				25					30		
Gly	Asp	Glu	Glu	Glu	Phe	Phe	Glu	Ile	Arg	Thr	Glu	Trp	Ser	Asp	Arg
				35				40					45		
Ser	Val	Leu	Tyr	Leu	His	Arg	Ser	Leu	Ala	Asp	Leu	Gly	Arg	Leu	Trp

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Gln Arg Leu Arg Asp Ala Phe Pro Glu Asp Arg Ser Glu Leu Ala Gln				
65	70	75	80	
Gly Pro Leu Arg Gln Gly Leu Val Ala Ile Lys Glu Ala His Asp Ile				
	85	90	95	
Glu Thr Arg Leu Asn Glu Val Glu Lys Leu Leu Lys Thr Ile Ile Ser				
	100	105	110	
Met Pro Cys Lys Tyr Ser Arg Ser Glu Val Val Leu Thr Phe Phe Glu				
	115	120	125	
Arg Ser Pro Leu Asp Gln Val Leu Lys Asn Asp Asn Val His Lys Ile				
	130	135	140	
Gln Pro Ser Phe Gln Ser Pro Val Lys Ile Ser Glu Ile Met Arg Ser				
	145	150	155	160
Asn Gly Phe Cys Leu Ala Asn Thr Glu Thr Ile Val Ile Asp His Ser				
	165	170	175	
Ile Pro Asn Gly Arg Asp Gln Gln Leu Gly Val Asp Pro Thr Glu His				
	180	185	190	
Leu Phe Glu Asn Gly Ser Glu Phe Pro Ser Glu Leu Glu Asp Gly Asp				
	195	200	205	
Asp Pro Ala Ala Tyr Val Thr Asn Leu Ser Tyr Tyr His Leu Val Pro				
	210	215	220	
Phe Glu Thr Asp Ile Trp Asp				
225	230			

&lt;210&gt; 4145

&lt;211&gt; 400

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4145

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400

&lt;210&gt; 4146

&lt;211&gt; 133

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4146

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Glu Pro Asp Lys Thr Pro Ala Ala Thr Val Thr Asn Glu Ala Ser Cys



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 Trp Ser Gly Pro Ser Pro Glu Gly Pro Val Pro Leu Thr Gly Glu Glu  
 35 40 45  
 Leu Asp Leu Arg Leu Ile Arg Thr Lys Gly Gly Val Asp Ala Ala Leu  
 50 55 60  
 Glu Tyr Ala Lys Thr Trp Ser Arg Tyr Ala Lys Glu Leu Leu Ala Trp  
 65 70 75 80  
 Thr Glu Lys Arg Ala Ser Tyr Glu Leu Glu Phe Ala Lys Ser Thr Met  
 85 90 95  
 Lys Ile Ala Glu Ala Gly Lys Val Ser Ile Gln Gln Gln Ser His Met  
 100 105 110  
 Pro Leu Gln Tyr Ile Tyr Thr Leu Phe Leu Glu His Asp Leu Ser Leu  
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 Gly Thr Leu Ala Met  
 130

&lt;210&gt; 4147

&lt;211&gt; 4892

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4147

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 4892

&lt;210&gt; 4148

&lt;211&gt; 697

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4148

Met Ala Cys Glu Ile Met Pro Leu Gln Ser Ser Gln Glu Asp Glu Arg  
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 Val Ser Ala Thr Gly Glu Leu Leu Glu Arg Thr Ile Arg Ser Ala Val  
 35 40 45  
 Glu Gln His Leu Phe Asp Val Asn Asn Ser Gly Gly Gln Ser Ser Glu  
 50 55 60  
 Asp Ser Glu Ser Gly Thr Leu Ser Ala Ser Ser Ala Thr Ser Ala Arg  
 65 70 75 80  
 Gln Arg Arg Arg Gln Ser Lys Glu Gln Asp Glu Val Arg His Gly Arg  
 85 90 95  
 Asp Lys Gly Leu Ile Asn Lys Glu Asn Thr Pro Ser Gly Phe Asn His  
 100 105 110  
 Leu Asp Asp Cys Ile Leu Asn Thr Gln Glu Val Glu Lys Val His Lys  
 115 120 125  
 Asn Thr Phe Gly Cys Ala Gly Glu Arg Ser Lys Pro Lys Arg Gln Lys  
 130 135 140  
 Ser Ser Thr Lys Leu Ser Glu Leu His Asp Asn Gln Asp Gly Leu Val  
 145 150 155 160  
 Asn Met Glu Ser Leu Asn Ser Thr Arg Ser His Glu Arg Thr Gly Pro  
 165 170 175  
 Asp Asp Phe Glu Trp Met Ser Asp Glu Arg Lys Gly Asn Glu Lys Asp

3335

610		615		620
Leu Leu Glu His Leu Gln Glu Met Arg Glu Glu Lys Lys Arg Ile Arg				
625		630		635
Lys Lys Leu Arg Asp Phe Glu Asp Asn Phe Phe Arg Gln Asn Gly Arg				640
	645		650	655
Asn Val Gln Lys Glu Asp Arg Thr Pro Met Ala Glu Glu Tyr Ser Glu				
	660		665	670
Tyr Lys His Ile Lys Ala Lys Leu Arg Leu Leu Glu Val Leu Ile Ser				
	675		680	685
Lys Arg Asp Thr Asp Ser Lys Ser Met				
690		695		

&lt;210&gt; 4149

&lt;211&gt; 1396

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4149

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<210> 4150

<211> 193

<212> PRT

<213> Homo sapiens

<400> 4150

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			20					25					30		
His	Ile	Lys	Arg	Ile	Thr	Asp	Asn	Asp	Ile	Gln	Ser	Leu	Val	Leu	Glu
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Pro	Lys	Lys	Thr	Leu	Gly	Ile	Lys	Leu	Pro	Phe	Leu	Val	Met	Ile	Ile
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Lys	Asn	Leu	Lys	Lys	Tyr	Phe	Thr	Phe	Glu	Val	Gln	Val	Leu	Asp	Asp
			85					90						95	
Lys	Asn	Val	Arg	Arg	Arg	Phe	Arg	Ala	Ser	Asn	Tyr	Gln	Ser	Thr	Thr
			100					105					110		
Arg	Val	Lys	Pro	Phe	Ile	Cys	Thr	Met	Pro	Met	Arg	Leu	Asp	Asp	Gly
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Trp	Asn	Gln	Ile	Gln	Phe	Asn	Leu	Leu	Asp	Phe	Thr	Arg	Arg	Ala	Tyr
	130					135					140				
Gly	Thr	Asn	Tyr	Ile	Glu	Thr	Leu	Arg	Val	Gln	Ile	His	Ala	Asn	Cys
145				150					155					160	
Arg	Ile	Arg	Arg	Val	Tyr	Phe	Ser	Asp	Arg	Leu	Tyr	Ser	Glu	Asp	Glu
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Gln

<210> 4151

<211> 1372

<212> DNA

<213> Homo sapiens

<400> 4151

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&lt;210&gt; 4152

&lt;211&gt; 97

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4152

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 Gly Cys Pro Ala Val Arg Lys Ala Ser Ala Gly Ala Ala Ala Val



20 25 30  
 Arg Glu Gly Glu Thr Pro Ala Glu Asp Ala Lys Leu Asp Arg Pro Gly  
 35 40 45  
 Ser Glu Pro Ala Ser Val Ala Pro Asn Gln Asn Leu Leu Cys Ala Pro  
 50 55 60  
 Arg Pro Pro Ser Thr Phe Met Ser Val Leu Leu Leu Arg Gly Gln Val  
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 Leu Pro Ser Leu Thr Ala Leu Ala Arg Pro Ala Arg Phe Pro Ser Asn  
 85 90 95  
 Pro

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 <211> 395  
 <212> DNA  
 <213> Homo sapiens

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 180  
 atgacctctg acccatgctg ttgcatgga agcgagttgg tgacatcttt ccattggatg  
 240  
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<210> 4154  
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 <213> Homo sapiens

<400> 4154  
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 Asn Gly Lys Met Ser Pro Thr Arg Phe His Ala Asn Ser Met Gly Gln  
 35 40 45  
 Arg Ser Tyr Ser Phe Glu Ala Ser Glu Glu Asp Leu Asp Val Asn Asp  
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 Lys Val Glu Glu Leu Met Arg Arg Asp Ser Ser Val Ile Lys Glu Glu  
 65 70 75 80  
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<213> Homo sapiens

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1191

<210> 4156  
<211> 233  
<212> PRT  
<213> Homo sapiens

<400> 4156  
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Asn Val Lys Asp Leu Arg Pro Arg Ala Arg Thr Ile Leu Lys Trp Asn			
35	40	45	
Glu Leu Asn Val Gly Asp Val Val Met Val Asn Tyr Asn Val Glu Ser			
50	55	60	
Pro Gly Gln Arg Gly Phe Trp Phe Asp Ala Glu Ile Thr Thr Leu Lys			
65	70	75	80
Thr Ile Ser Arg Thr Lys Lys Glu Leu Arg Val Lys Ile Phe Leu Gly			
85	90	95	
Gly Ser Glu Gly Thr Leu Asn Asp Cys Lys Ile Ile Ser Val Asp Glu			
100	105	110	
Ile Phe Lys Ile Glu Arg Pro Gly Ala His Pro Leu Ser Phe Ala Asp			
115	120	125	
Gly Lys Phe Leu Arg Arg Asn Asp Pro Glu Cys Asp Leu Cys Gly Gly			
130	135	140	
Asp Pro Glu Lys Lys Cys His Ser Cys Ser Cys Arg Val Cys Gly Gly			
145	150	155	160
Lys His Glu Pro Asn Met Gln Leu Leu Cys Asp Glu Cys Asn Val Ala			
165	170	175	
Tyr His Ile Tyr Cys Leu Asn Pro Pro Leu Asp Lys Val Pro Glu Glu			
180	185	190	
Glu Tyr Trp Tyr Cys Pro Ser Cys Lys Thr Asp Ser Ser Glu Val Val			
195	200	205	
Lys Ala Gly Glu Arg Leu Lys Met Ser Lys Lys Lys Ala Lys Met Pro			
210	215	220	
Ser Ala Ser Thr Glu Ser Arg Arg Asp			
225	230		

&lt;210&gt; 4157

&lt;211&gt; 3460

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4157

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2160

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 3460

&lt;210&gt; 4158

&lt;211&gt; 463

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4158

Met Pro Leu Thr Leu Leu Gln Asp Trp Cys Arg Gly Glu His Leu Asn

1

5

10

15

Thr Arg Arg Cys Met Leu Ile Leu Gly Ile Pro Glu Asp Cys Gly Glu

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Asp	Glu	Phe	Glu	Glu	Thr	Leu	Gln	Glu	Ala	Cys	Arg	His	Leu	Gly	Arg												
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Tyr	Arg	Val	Ile	Gly	Arg	Met	Phe	Arg	Arg	Glu	Glu	Asn	Ala	Gln	Ala												
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Ile	Leu	Leu	Glu	Leu	Ala	Gln	Asp	Ile	Asp	Tyr	Ala	Leu	Leu	Pro	Arg												
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Glu	Ile	Pro	Gly	Lys	Gly	Gly	Pro	Trp	Glu	Val	Ile	Val	Lys	Pro	Arg												
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Asn	Ser	Asp	Gly	Glu	Phe	Leu	Asn	Arg	Leu	Asn	Arg	Phe	Leu	Glu	Glu												
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Glu	Arg	Arg	Thr	Val	Ser	Asp	Met	Asn	Arg	Val	Leu	Gly	Ser	Asp	Thr												
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Asn	Cys	Ser	Ala	Pro	Arg	Val	Thr	Ile	Ser	Pro	Glu	Phe	Trp	Thr	Trp												
										130						135						140					
Ala	Gln	Thr	Leu	Gly	Ala	Ala	Val	Gln	Pro	Leu	Leu	Glu	Gln	Met	Leu												
										145						150						155					
Tyr	Arg	Glu	Leu	Arg	Val	Phe	Ser	Gly	Asn	Thr	Ile	Ser	Ile	Pro	Gly												
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Ala	Leu	Ala	Phe	Asp	Ala	Trp	Leu	Glu	His	Thr	Thr	Glu	Met	Leu	Gln												
										180						185						190					
Met	Trp	Gln	Val	Pro	Glu	Gly	Glu	Lys	Arg	Arg	Arg	Leu	Met	Glu	Cys												
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Leu	Arg	Gly	Pro	Ala	Leu	Gln	Val	Val	Ser	Gly	Leu	Arg	Ala	Ser	Asn												
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Ala	Ser	Ile	Thr	Val	Glu	Glu	Cys	Leu	Ala	Ala	Leu	Gln	Gln	Val	Phe												
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Gly	Pro	Val	Glu	Ser	His	Lys	Ile	Ala	Gln	Val	Lys	Leu	Cys	Lys	Ala												
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Tyr	Gln	Glu	Ala	Gly	Glu	Lys	Val	Ser	Ser	Phe	Val	Leu	Arg	Leu	Glu												
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Pro	Leu	Leu	Gln	Arg	Ala	Val	Glu	Asn	Asn	Val	Val	Ser	Arg	Arg	Asn												
										275						280						285					
Val	Asn	Gln	Thr	Arg	Leu	Lys	Arg	Val	Leu	Ser	Gly	Ala	Thr	Leu	Pro												
										290						295						300					
Asp	Lys	Leu	Arg	Asp	Lys	Leu	Lys	Leu	Met	Lys	Gln	Arg	Arg	Lys	Pro												
										305						310						315					
Pro	Gly	Phe	Leu	Ala	Leu	Val	Lys	Leu	Leu	Arg	Glu	Glu	Glu	Glu	Trp												
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Ala	Pro	Arg	Pro	Pro	Ala	Arg	Ile	Thr	Gly	Val	Gly	Ala	Val	Pro	Leu												
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Pro	Ala	Ser	Gly	Asn	Ser	Phe	Asp	Ala	Arg	Pro	Ser	Gln	Gly	Tyr	Arg												
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Arg	Arg	Arg	Gly	Arg	Gly	Gln	His	Arg	Arg	Gly	Gly	Val	Ala	Arg	Ala												
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Gly	Ser	Arg	Gly	Ser	Arg	Lys	Arg	Lys	Arg	His	Thr	Phe	Cys	Tyr	Ser												
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Cys	Gly	Glu	Asp	Gly	His	Ile	Arg	Val	Gln	Cys	Ile	Asn	Pro	Ser	Asn												
										420						425						430					
Leu	Leu	Leu	Val	Lys	Gln	Lys	Lys	Gln	Ala	Ala	Val	Glu	Ser	Gly	Asn												
										435						440						445					
Gly	Asn	Trp	Ala	Trp	Asp	Lys	Ser	His	Pro	Lys	Ser	Lys	Ala	Lys													

450

455

460

&lt;210&gt; 4159

&lt;211&gt; 1491

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4159

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<210> 4160

<211> 360

<212> PRT

<213> Homo sapiens

<400> 4160

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			20					25					30		
Pro	Trp	Val	Asn	Asp	Gln	Asp	Val	Pro	Phe	Cys	Pro	Asp	Cys	Gly	Asn
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Lys	Phe	Ser	Ile	Arg	Asn	Arg	Arg	His	His	Cys	Arg	Leu	Cys	Gly	Ser
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Ile	Met	Cys	Lys	Lys	Cys	Met	Glu	Leu	Ile	Ser	Leu	Pro	Leu	Ala	Asn
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Lys	Leu	Thr	Ser	Ala	Ser	Lys	Glu	Ser	Leu	Ser	Thr	His	Thr	Ser	Pro
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Ser	Gln	Ser	Pro	Asn	Ser	Val	His	Gly	Ser	Arg	Arg	Gly	Ser	Ile	Ser
			100					105					110		
Ser	Met	Ser	Ser	Val	Ser	Ser	Val	Leu	Asp	Glu	Lys	Asp	Asp	Asp	Arg
		115					120					125			
Ile	Arg	Cys	Cys	Thr	His	Cys	Lys	Asp	Thr	Leu	Leu	Lys	Arg	Glu	Gln
	130					135						140			
Gln	Ile	Asp	Glu	Lys	Glu	His	Thr	Pro	Asp	Ile	Val	Lys	Leu	Tyr	Glu
145				150						155					160
Lys	Leu	Arg	Leu	Cys	Met	Glu	Lys	Val	Asp	Gln	Lys	Ala	Pro	Glu	Tyr
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Ile	Arg	Met	Ala	Ala	Ser	Leu	Asn	Ala	Gly	Glu	Thr	Thr	Tyr	Ser	Leu
			180					185						190	
Glu	His	Ala	Ser	Asp	Leu	Arg	Val	Glu	Val	Gln	Lys	Val	Tyr	Glu	Leu
	195						200					205			
Ile	Asp	Ala	Leu	Ser	Lys	Lys	Ile	Leu	Thr	Leu	Gly	Leu	Asn	Gln	Asp
	210					215					220				
Pro	Pro	Pro	His	Pro	Ser	Asn	Leu	Arg	Leu	Gln	Arg	Met	Ile	Arg	Tyr
225					230					235				240	
Ser	Ala	Thr	Leu	Phe	Val	Gln	Glu	Lys	Leu	Leu	Gly	Leu	Met	Ser	Leu
			245						250					255	
Pro	Thr	Lys	Glu	Gln	Phe	Glu	Glu	Leu	Lys	Lys	Lys	Arg	Lys	Glu	Glu
			260					265						270	
Met	Glu	Arg	Lys	Arg	Ala	Val	Glu	Arg	Gln	Ala	Ala	Leu	Glu	Ser	Gln
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Arg	Arg	Leu	Glu	Glu	Arg	Gln	Ser	Gly	Leu	Ala	Ser	Arg	Ala	Ala	Asn
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<211> 3316  
<212> DNA  
<213> Homo sapiens

<400> 4161  
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<210> 4162

<211> 859

<212> PRT

<213> Homo sapiens

<400> 4162

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Glu	His	Ser	Glu	Asn	Val	His	Ile	Ser	Gly	Val	Ser	Thr	Ala	Cys	Gly
	35						40					45			
Glu	Thr	Pro	Glu	Gln	Ile	Arg	Ala	Pro	Ser	Gly	Ile	Ile	Thr	Ser	Pro
	50					55					60				
Gly	Trp	Pro	Ser	Glu	Tyr	Pro	Ala	Lys	Ile	Asn	Cys	Ser	Trp	Phe	Ile
65				70						75				80	
Arg	Ala	Asn	Pro	Gly	Glu	Ile	Ile	Thr	Ile	Ser	Phe	Gln	Asp	Phe	Asp
			85					90					95		
Ile	Gln	Gly	Ser	Arg	Arg	Cys	Asn	Leu	Asp	Trp	Leu	Thr	Ile	Glu	Thr
		100					105					110			
Tyr	Lys	Asn	Ile	Glu	Ser	Tyr	Arg	Ala	Cys	Gly	Ser	Thr	Ile	Pro	Pro
	115						120					125			
Pro	Tyr	Ile	Ser	Ser	Gln	Asp	His	Ile	Trp	Ile	Arg	Phe	His	Ser	Asp
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Asp	Asn	Ile	Ser	Arg	Lys	Gly	Phe	Arg	Leu	Ala	Tyr	Phe	Ser	Gly	Lys
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Ser	Glu	Glu	Pro	Asn	Cys	Ala	Cys	Asp	Gln	Phe	Arg	Cys	Gly	Asn	Gly
			165					170					175		
Lys	Cys	Ile	Pro	Glu	Ala	Trp	Lys	Cys	Asn	Asn	Met	Asp	Glu	Cys	Gly
		180					185						190		
Asp	Ser	Ser	Asp	Glu	Glu	Ile	Cys	Ala	Lys	Glu	Ala	Asn	Pro	Pro	Thr
	195					200						205			
Ala	Ala	Ala	Phe	Gln	Pro	Cys	Ala	Tyr	Asn	Gln	Phe	Gln	Cys	Leu	Ser
	210					215						220			
Arg	Phe	Thr	Lys	Val	Tyr	Thr	Cys	Leu	Pro	Glu	Ser	Leu	Lys	Cys	Asp
225				230						235				240	
Gly	Asn	Ile	Asp	Cys	Leu	Asp	Leu	Gly	Asp	Glu	Ile	Asp	Cys	Asp	Val
			245					250					255		
Pro	Thr	Cys	Gly	Gln	Trp	Leu	Lys	Tyr	Phe	Tyr	Gly	Thr	Phe	Asn	Ser

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Ile Asp Thr Gly Asp His Arg Lys Val	Ile Leu Arg Phe Thr Asp Phe	
290	295	300
Lys Leu Asp Gly Thr Gly Tyr Gly Asp Tyr Val	Lys Ile Tyr Asp Gly	
305	310	315
Leu Glu Glu Asn Pro His Lys Leu Leu Arg Val	Leu Thr Ala Phe Asp	
325	330	335
Ser His Ala Pro Leu Thr Val Val Ser Ser Ser	Gly Gln Ile Arg Val	
340	345	350
His Phe Cys Ala Asp Lys Val Asn Ala Ala Arg	Gly Phe Asn Ala Thr	
355	360	365
Tyr Gln Val Asp Gly Phe Cys Leu Pro Trp Glu	Ile Pro Cys Gly Gly	
370	375	380
Asn Trp Gly Cys Tyr Thr Glu Gln Gln Arg Cys	Asp Gly Tyr Trp His	
385	390	395
Cys Pro Asn Gly Arg Asp Glu Thr Asn Cys Thr	Met Cys Gln Lys Glu	
405	410	415
Glu Phe Pro Cys Ser Arg Asn Gly Val Cys Tyr	Pro Arg Ser Asp Arg	
420	425	430
Cys Asn Tyr Gln Asn His Cys Pro Asn Gly Ser	Asp Glu Lys Asn Cys	
435	440	445
Phe Phe Cys Gln Pro Gly Asn Phe His Cys Lys	Asn Asn Arg Cys Val	
450	455	460
Phe Glu Ser Trp Val Cys Asp Ser Gln Asp Asp	Cys Gly Asp Gly Ser	
465	470	475
Asp Glu Glu Asn Cys Pro Val Ile Val Pro Thr	Arg Val Ile Thr Ala	
485	490	495
Ala Val Ile Gly Ser Leu Ile Cys Gly Leu Leu	Val Ile Ala Leu	
500	505	510
Gly Cys Thr Cys Lys Leu Tyr Ser Leu Arg Met	Phe Glu Arg Arg Ser	
515	520	525
Phe Glu Thr Gln Leu Ser Arg Val Glu Ala Glu	Leu Leu Arg Arg Glu	
530	535	540
Ala Pro Pro Ser Tyr Gly Gln Leu Ile Ala Gln	Gly Leu Ile Pro Pro	
545	550	555
Val Glu Asp Phe Pro Val Cys Ser Pro Asn Gln	Ala Ser Val Leu Glu	
565	570	575
Asn Leu Arg Leu Ala Val Arg Ser Gln Leu Gly	Phe Thr Ser Val Arg	
580	585	590
Leu Pro Met Ala Gly Arg Ser Ser Asn Ile Trp	Asn Arg Ile Phe Asn	
595	600	605
Phe Ala Arg Ser Arg His Ser Gly Ser Leu Ala	Leu Val Ser Ala Asp	
610	615	620
Gly Asp Glu Val Val Pro Ser Gln Ser Thr Ser	Arg Glu Pro Glu Arg	
625	630	635
Asn His Thr His Arg Ser Leu Phe Ser Val Glu	Ser Asp Asp Thr Asp	
645	650	655
Thr Glu Asn Glu Arg Arg Asp Met Ala Gly Ala	Ser Gly Gly Val Ala	
660	665	670
Ala Pro Leu Pro Gln Lys Val Pro Pro Thr Thr	Ala Val Glu Ala Thr	
675	680	685
Val Gly Ala Cys Ala Ser Ser Ser Thr Gln Ser	Thr Arg Gly Gly His	

690	695	700
Ala Asp Asn Gly Arg Asp Val Thr Ser Val Glu Pro Pro Ser Val Ser		
705	710	715
Pro Ala Arg His Gln Leu Thr Ser Ala Leu Ser Arg Met Thr Gln Gly		
	725	730
Leu Arg Trp Val Arg Phe Thr Leu Gly Arg Ser Ser Ser Leu Ser Gln		
	740	745
Asn Gln Ser Pro Leu Arg Gln Leu Asp Asn Gly Val Ser Gly Arg Glu		
	755	760
Asp Asp Asp Asp Val Glu Met Leu Ile Pro Ile Ser Asp Gly Ser Ser		
	770	775
Asp Phe Asp Val Asn Asp Cys Ser Arg Pro Leu Leu Asp Leu Ala Ser		
785	790	795
Asp Gln Gly Gln Gly Leu Arg Gln Pro Tyr Asn Ala Thr Asn Pro Gly		
	805	810
Val Arg Pro Ser Asn Arg Asp Gly Pro Cys Glu Arg Cys Gly Ile Val		
	820	825
His Thr Ala Gln Ile Pro Asp Thr Cys Leu Glu Val Thr Leu Lys Asn		
	835	840
Glu Thr Ser Asp Asp Glu Ala Leu Leu Leu Cys		
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&lt;210&gt; 4163

&lt;211&gt; 568

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4163

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568

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&lt;210&gt; 4164

&lt;211&gt; 187

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4164

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 Arg Pro Thr Pro Gly Leu Pro Gly Gln Ser Gly His Gly Ser Leu Gln  
 20 25 30  
 Cys Gly Leu Gln Asp Pro Ala Gly Ser Arg Pro Leu Ser Pro Pro Phe  
 35 40 45  
 Ser Arg Leu Arg Ser Glu Gly Ser Lys Ser Val Leu Pro Gln Trp Leu  
 50 55 60  
 Trp Gly Met Lys Gly Ile Pro Val Pro Ser Gly His Pro Gln Ala Asp  
 65 70 75 80  
 Gly Arg Arg Ala Leu Val Arg Ala Val Gly His Pro Gln Asp Leu Leu  
 85 90 95  
 Thr Glu Ala Ser Pro Arg Cys Pro Ala Gly Pro Ser Pro Leu Arg Ser  
 100 105 110  
 Thr Gly Arg Lys Pro Pro Gly Pro Pro Arg Gly Gly Asp Leu Ala Ala  
 115 120 125  
 Pro Val Leu Phe Lys Ala Trp Ala Thr Ser Leu Ala Cys Pro Lys Trp  
 130 135 140  
 Gln Ala Leu Arg Arg Ala Arg Met Val Pro Val Val Gln Gly Ser Pro  
 145 150 155 160  
 Pro Ala Trp Ala Ala Pro Val Pro Trp Asn Leu Leu Pro Trp Gly Pro  
 165 170 175  
 Trp Thr Cys Arg His Met Ala Ile Glu Leu Gln  
 180 185

&lt;210&gt; 4165

&lt;211&gt; 717

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4165

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<210> 4166

<211> 166

<212> PRT

<213> Homo sapiens

<400> 4166

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Gln	Thr	Ile	Ile	Tyr	Pro	Met	Glu	Val	Leu	Lys	Thr	Arg	Leu	Thr	Leu
		20					25						30		
Arg	Arg	Thr	Gly	Gln	Tyr	Lys	Gly	Leu	Leu	Asp	Cys	Ala	Arg	Arg	Ile
		35					40					45			
Leu	Glu	Arg	Glu	Gly	Pro	Arg	Ala	Phe	Tyr	Arg	Gly	Tyr	Leu	Pro	Asn
	50					55					60				
Val	Leu	Gly	Ile	Ile	Pro	Tyr	Ala	Gly	Ile	Asp	Leu	Ala	Val	Tyr	Glu
65					70					75				80	
Thr	Leu	Lys	Asn	Trp	Trp	Leu	Gln	Gln	Tyr	Ser	His	Asp	Ser	Ala	Asp
			85						90					95	
Pro	Gly	Ile	Leu	Val	Leu	Leu	Ala	Cys	Gly	Thr	Ile	Ser	Ser	Thr	Cys
			100					105						110	
Gly	Gln	Ile	Ala	Ser	Tyr	Pro	Leu	Ala	Leu	Val	Arg	Thr	Arg	Met	Gln
		115						120						125	
Ala	Gln	Gly	Phe	His	His	Val	Ala	Gln	Ala	His	Leu	Glu	Leu	Val	Gly
		130						135						140	
Ser	Arg	Asn	Ser	Pro	Ala	Phe	Ser	Leu	Pro	Thr	Cys	Trp	Asp	Tyr	Arg
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Lys	Pro	Val	Val	Met	Pro										
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<210> 4167

<211> 897

<212> DNA

<213> Homo sapiens

<400> 4167

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 720  
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 780  
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<210> 4168

<211> 299

<212> PRT

<213> Homo sapiens

<400> 4168

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Gly	Gln	Phe	Thr	Arg	Glu	Arg	Ala	Gly	Arg	Glu	Asp	His	Arg	Ala	Phe
			20					25					30		
Gln	Thr	Ala	Gly	Val	Gln	Trp	Arg	Asp	Leu	Ser	Pro	Pro	Gln	Leu	Pro
		35					40				45				
Pro	Pro	Gly	Ile	Lys	Gln	Ser	Ser	Cys	Phe	Ser	Leu	Leu	Ser	Ser	Leu
	50					55					60				
Asp	Tyr	Arg	Tyr	Gly	Arg	Val	Glu	Ser	Val	Lys	Ile	Leu	Pro	Lys	Arg
65					70					75				80	
Gly	Ser	Glu	Gly	Gly	Val	Ala	Ala	Phe	Val	Asp	Phe	Val	Asp	Ile	Lys
			85					90					95		
Ser	Ala	Gln	Lys	Ala	His	Asn	Ser	Val	Asn	Lys	Met	Gly	Asp	Arg	Asp
			100					105					110		
Leu	Arg	Thr	Asp	Tyr	Asn	Glu	Pro	Gly	Thr	Ile	Pro	Ser	Ala	Ala	Arg
		115				120					125				
Gly	Leu	Asp	Asp	Thr	Val	Ser	Ile	Ala	Ser	Arg	Ser	Arg	Glu	Val	Ser
	130					135					140				
Gly	Phe	Arg	Gly	Gly	Gly	Gly	Gly	Pro	Ala	Tyr	Gly	Pro	Pro	Pro	Ser
145					150					155				160	
Leu	His	Ala	Arg	Glu	Gly	Arg	Tyr	Glu	Arg	Arg	Leu	Asp	Gly	Ala	Ser
			165					170					175		
Asp	Asn	Arg	Glu	Arg	Ala	Tyr	Glu	His	Ser	Ala	Tyr	Gly	His	His	Glu
		180					185					190			
Arg	Gly	Thr	Gly	Gly	Phe	Asp	Arg	Thr	Arg	His	Tyr	Asp	Gln	Asp	Tyr
	195					200					205				
Tyr	Arg	Asp	Pro	Arg	Glu	Arg	Thr	Leu	Gln	His	Gly	Leu	Tyr	Tyr	Ala
	210					215					220				
Ser	Arg	Ser	Arg	Ser	Pro	Asn	Arg	Phe	Asp	Ala	His	Asp	Pro	Arg	Tyr
225					230					235				240	
Glu	Pro	Arg	Ala	Arg	Glu	Gln	Phe	Thr	Leu	Pro	Ser	Val	Val	His	Arg
			245					250					255		
Asp	Ile	Tyr	Arg	Asp	Asp	Ile	Thr	Arg	Glu	Val	Arg	Gly	Arg	Arg	Pro



	260		265		270
Glu Arg Asn Tyr Gln His Ser Arg Ser Arg Ser Pro His Ser Ser Gln					
	275		280		285
Ser Arg Asn Gln Ser Pro Gln Arg Leu Ala Ser					
290		295			

&lt;210&gt; 4169

&lt;211&gt; 4743

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4169

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<213> Homo sapiens

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&lt;210&gt; 4178

&lt;211&gt; 398

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4178

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 Glu Lys Gly Thr Gly Lys Thr Leu Ser Leu Cys His Val Phe His Phe  
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&lt;210&gt; 4179

&lt;211&gt; 2208

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4179

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<211> 257

<212> PRT

<213> Homo sapiens

<400> 4180

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 <212> DNA  
 <213> Homo sapiens

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 <211> 192  
 <212> PRT  
 <213> Homo sapiens

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<212> DNA
<213> Homo sapiens
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780

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&lt;210&gt; 4184

&lt;211&gt; 374

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4184

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His	Ser	Pro	Ser	Ser	Arg	Phe	Val	Pro	Pro	Gln	Thr	Ser	Ser	Gly	Asn
			20					25					30		
Arg	Phe	Met	Pro	Gln	Gln	Asn	Ser	Pro	Val	Pro	Ser	Pro	Tyr	Ala	Pro
		35				40					45				
Gln	Ser	Pro	Ala	Gly	Tyr	Met	Pro	Tyr	Ser	His	Pro	Ser	Ser	Tyr	Thr
	50					55					60				
Thr	His	Pro	Gln	Met	Gln	Gln	Ala	Ser	Val	Ser	Ser	Pro	Ile	Val	Ala
65					70					75				80	
Gly	Gly	Leu	Arg	Asn	Ile	His	Asp	Asn	Lys	Val	Ser	Gly	Pro	Leu	Ser
				85					90					95	
Gly	Asn	Ser	Ala	Asn	His	His	Ala	Asp	Asn	Pro	Arg	His	Gly	Ser	Ser
			100					105					110		
Glu	Asp	Tyr	Leu	His	Met	Val	His	Arg	Leu	Ser	Ser	Asp	Asp	Gly	Asp
	115					120						125			
Ser	Ser	Thr	Met	Arg	Asn	Ala	Ala	Ser	Phe	Pro	Leu	Arg	Ser	Pro	Gln
	130					135					140				
Pro	Val	Cys	Ser	Pro	Ala	Gly	Ser	Glu	Gly	Thr	Pro	Lys	Gly	Ser	Arg
145					150					155				160	
Pro	Pro	Leu	Ile	Leu	Gln	Ser	Gln	Ser	Leu	Pro	Cys	Ser	Ser	Pro	Arg
				165					170					175	
Asp	Val	Pro	Pro	Asp	Ile	Leu	Leu	Asp	Ser	Pro	Glu	Arg	Lys	Gln	Lys
		180						185					190		
Lys	Gln	Lys	Lys	Met	Lys	Leu	Gly	Lys	Asp	Glu	Lys	Glu	Gln	Ser	Glu
	195					200						205			
Lys	Ala	Ala	Met	Tyr	Asp	Ile	Ile	Ser	Ser	Pro	Ser	Lys	Asp	Ser	Thr
	210					215					220				
Lys	Leu	Thr	Leu	Arg	Leu	Ser	Arg	Val	Arg	Ser	Ser	Asp	Met	Asp	Gln
225					230					235				240	
Gln	Glu	Asp	Met	Leu	Ser	Gly	Met	Glu	Asn	Ser	Asn	Val	Ser	Glu	Asn
				245					250					255	
Asp	Ile	Pro	Phe	Asn	Val	Gln	Tyr	Gln	Gly	Gln	Thr	Ser	Lys	Thr	Pro
		260						265					270		
Ile	Thr	Pro	Gln	Asp	Val	Asn	Arg	Pro	Leu	Asn	Ala	Ala	Gln	Cys	Leu

275	280	285
Ser Gln Gln Glu Gln Thr	Ala Phe Leu Pro Ala	Asn Gln Val Pro Val
290	295	300
Leu Gln Gln Asn Thr Ser	Val Ala Thr Lys Gln	Pro Gln Thr Ser Val
305	310	315
Val Gln Asn Gln Gln Gln	Ile Ser Gln Gln Gly	Pro Ile Tyr Asp Glu
325	330	335
Val Glu Leu Asp Ala Leu	Ala Glu Ile Glu Arg	Ile Glu Arg Glu Ser
340	345	350
Ala Ile Glu Arg Glu Arg	Phe Ser Lys Glu Val	Gln Asp Lys Asp Lys
355	360	365
Pro Leu Lys Lys Lys Lys		
370		

&lt;210&gt; 4185

&lt;211&gt; 1481

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4185

```

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180
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300
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360
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1020

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 1481

&lt;210&gt; 4186

&lt;211&gt; 385

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4186

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			20					25					30		
Gln	Gln	Ala	Glu	Lys	Ile	Leu	Lys	Ser	Met	Asp	Lys	Asn	Gly	Thr	Met
		35					40					45			
Thr	Ile	Asp	Trp	Asn	Glu	Trp	Arg	Asp	Tyr	His	Leu	Leu	His	Pro	Val
	50					55					60				
Glu	Asn	Ile	Pro	Glu	Ile	Ile	Leu	Tyr	Trp	Lys	His	Ser	Thr	Ile	Phe
65					70					75				80	
Asp	Val	Gly	Glu	Asn	Leu	Thr	Val	Pro	Asp	Glu	Phe	Thr	Val	Glu	Glu
				85					90					95	
Arg	Gln	Thr	Gly	Met	Trp	Trp	Arg	His	Leu	Val	Ala	Gly	Gly	Gly	Ala
			100					105					110		
Gly	Ala	Val	Ser	Arg	Thr	Cys	Thr	Ala	Pro	Leu	Asp	Arg	Leu	Lys	Val
		115					120					125			
Leu	Met	Gln	Val	His	Ala	Ser	Arg	Ser	Asn	Asn	Met	Gly	Ile	Val	Gly
		130					135					140			
Gly	Phe	Thr	Gln	Met	Ile	Arg	Glu	Gly	Gly	Ala	Arg	Ser	Leu	Trp	Arg
145				150						155				160	
Gly	Asn	Gly	Ile	Asn	Val	Leu	Lys	Ile	Ala	Pro	Glu	Ser	Ala	Ile	Lys
			165						170					175	
Phe	Met	Ala	Tyr	Glu	Gln	Ile	Lys	Arg	Leu	Val	Gly	Ser	Asp	Gln	Glu
			180					185					190		
Thr	Leu	Arg	Ile	His	Glu	Arg	Leu	Val	Ala	Gly	Ser	Leu	Ala	Gly	Ala
		195					200						205		
Ile	Ala	Gln	Ser	Ser	Ile	Tyr	Pro	Met	Glu	Val	Leu	Lys	Thr	Arg	Met
		210				215						220			
Ala	Leu	Arg	Lys	Thr	Gly	Gln	Tyr	Ser	Gly	Met	Leu	Asp	Cys	Ala	Arg
225					230					235				240	
Arg	Ile	Leu	Ala	Arg	Glu	Gly	Val	Ala	Ala	Phe	Tyr	Lys	Gly	Tyr	Val

245 250 255  
 Pro Asn Met Leu Gly Ile Ile Pro Tyr Ala Gly Ile Asp Leu Ala Val  
 260 265 270  
 Tyr Glu Thr Leu Lys Asn Ala Trp Leu Gln His Tyr Ala Val Asn Ser  
 275 280 285  
 Ala Asp Pro Gly Val Phe Val Leu Leu Ala Cys Gly Thr Met Ser Ser  
 290 295 300  
 Thr Cys Gly Gln Leu Ala Ser Tyr Pro Leu Ala Leu Val Arg Thr Arg  
 305 310 315 320  
 Met Gln Ala Gln Ala Ser Ile Glu Gly Ala Pro Glu Val Thr Met Ser  
 325 330 335  
 Ser Leu Phe Lys His Ile Leu Arg Thr Glu Gly Ala Phe Gly Leu Tyr  
 340 345 350  
 Arg Gly Leu Ala Pro Asn Phe Met Lys Val Ile Pro Ala Val Ser Ile  
 355 360 365  
 Ser Tyr Val Val Tyr Glu Asn Leu Lys Ile Thr Leu Gly Val Gln Ser  
 370 375 380  
 Arg  
 385

&lt;210&gt; 4187

&lt;211&gt; 1087

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4187

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 240  
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 360  
 aagtaccaga tctacttctg gaacattgcc accattgctg tcttctatgc ccttctctg  
 420  
 gtgcagctgg tgatcaccta cccagaggnn gnggatgta cnaggggatc nagggacatc  
 480  
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 960  
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<210> 4188

<211> 272

<212> PRT

<213> Homo sapiens

<400> 4188

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Pro	Arg	Val	Leu	Ala	Asp	Ser	Phe	Pro	Asp	Ser	Ser	Pro	Tyr	Glu	Gly
			20					25					30		
Tyr	Asn	Tyr	Gly	Ser	Phe	Glu	Asn	Val	Ser	Gly	Ser	Thr	Asp	Gly	Leu
		35					40					45			
Val	Asp	Ser	Ala	Gly	Thr	Gly	Asp	Leu	Ser	Tyr	Gly	Tyr	Gln	Gly	Arg
	50					55				60					
Ser	Phe	Glu	Pro	Val	Gly	Thr	Arg	Pro	Arg	Val	Asp	Ser	Met	Ser	Ser
65					70					75				80	
Val	Glu	Glu	Asp	Asp	Tyr	Asp	Thr	Leu	Thr	Asp	Ile	Asp	Ser	Asp	Lys
			85						90					95	
Asn	Val	Ile	Arg	Thr	Lys	Gln	Tyr	Leu	Tyr	Val	Ala	Asp	Leu	Ala	Arg
			100					105					110		
Lys	Asp	Lys	Arg	Val	Leu	Arg	Lys	Lys	Tyr	Gln	Ile	Tyr	Phe	Trp	Asn
		115					120					125			
Ile	Ala	Thr	Ile	Ala	Val	Phe	Tyr	Ala	Leu	Pro	Val	Val	Gln	Leu	Val
	130					135					140				
Ile	Thr	Tyr	Pro	Glu	Xaa	Gly	Gly	Cys	Thr	Arg	Gly	Ser	Arg	Asp	Ile
145					150					155				160	
Cys	Ser	Ser	Asn	Phe	Leu	Cys	Ala	His	Pro	Leu	Gly	Asn	Leu	Ser	Ala
			165						170					175	
Phe	Asn	Asn	Ile	Leu	Ser	Asn	Leu	Gly	Tyr	Ile	Leu	Leu	Gly	Leu	Leu
		180					185						190		
Phe	Leu	Leu	Ile	Ile	Leu	Gln	Arg	Glu	Ile	Asn	His	Asn	Arg	Ala	Leu
	195					200						205			
Leu	Arg	Asn	Asp	Leu	Cys	Ala	Leu	Glu	Cys	Gly	Ile	Pro	Lys	His	Phe
	210					215					220				
Gly	Leu	Phe	Tyr	Ala	Met	Gly	Thr	Ala	Leu	Met	Met	Glu	Gly	Leu	Leu
225					230					235				240	
Ser	Ala	Cys	Tyr	His	Val	Cys	Pro	Asn	Tyr	Thr	Asn	Phe	Gln	Phe	Gly
			245						250					255	
Glu	Trp	Gly	Val	Leu	Leu	Phe	Trp	Leu	Asn	Leu	Gln	Gln	Gly	Pro	Ala
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<210> 4189

<211> 1570



&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4189

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120  
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180  
acagaagtga agaaagatga ggccggagaa aactattcca aggatcaagg tggtcggaca  
240  
ttgtgtggtg taatgaggat tggcctggtt gcaaaaggct tgctgattaa agatgatatg  
300  
gacttggagc tggttttaat gtgcaaagac aaaccacag agaccctgtt aaatacagtc  
360  
aaagataatc ttccatttca gattcagaaa ctcacagaag agaaatatca agtgaacaa  
420  
tgtgtaaatg aggcattctat tataattcgg aatacaaaag agcccacgct aactttgaag  
480  
gtgatactta cctcacctct aattagggac gaattggaga agaaggatgg agaaaatgtt  
540  
tcgatgaaag atcctccgga cttattggac aggcagaaat gcctgaacgc cttggcgctc  
600  
cttcgacatg ccaaatggtt tcaggcaagg gcaaatggat taaaatcatg tgtaattgtc  
660  
ctccgcattc tgcgtgattt gtgcaacaga gtccccacat gggcaccatt gaaaggatgg  
720  
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780  
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840  
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960  
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1140  
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1200  
cttcagtata agctcctatc tcagtctggc cccgttcatg cccagctctt cacaatgtct  
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1320  
cacgtagcgg tgaaggtatt gcaggcaatg ggatatccaa caggctttga tgcagatatt  
1380  
gaatgtatga gttccgatga aaaaagaaga ggtctcaagt atgaactcat ctcagagact  
1440  
ggtggaagcc atgacaagcg ctttgtaatg gaggtagaag tagatggaca gaaattcaga  
1500

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<210> 4190

<211> 523

<212> PRT

<213> Homo sapiens

<400> 4190

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			20					25					30		
Met	Val	Ser	Thr	Val	Glu	Cys	Ala	Leu	Lys	His	Val	Ser	Asp	Trp	Leu
		35					40					45			
Asp	Glu	Thr	Asn	Lys	Gly	Thr	Lys	Thr	Glu	Gly	Glu	Thr	Glu	Val	Lys
	50					55					60				
Lys	Asp	Glu	Ala	Gly	Glu	Asn	Tyr	Ser	Lys	Asp	Gln	Gly	Gly	Arg	Thr
65					70					75				80	
Leu	Cys	Gly	Val	Met	Arg	Ile	Gly	Leu	Val	Ala	Lys	Gly	Leu	Leu	Ile
				85					90					95	
Lys	Asp	Asp	Met	Asp	Leu	Glu	Leu	Val	Leu	Met	Cys	Lys	Asp	Lys	Pro
			100					105					110		
Thr	Glu	Thr	Leu	Leu	Asn	Thr	Val	Lys	Asp	Asn	Leu	Pro	Ile	Gln	Ile
			115					120					125		
Gln	Lys	Leu	Thr	Glu	Glu	Lys	Tyr	Gln	Val	Glu	Gln	Cys	Val	Asn	Glu
			130				135					140			
Ala	Ser	Ile	Ile	Ile	Arg	Asn	Thr	Lys	Glu	Pro	Thr	Leu	Thr	Leu	Lys
145					150					155					160
Val	Ile	Leu	Thr	Ser	Pro	Leu	Ile	Arg	Asp	Glu	Leu	Glu	Lys	Lys	Asp
				165					170					175	
Gly	Glu	Asn	Val	Ser	Met	Lys	Asp	Pro	Pro	Asp	Leu	Leu	Asp	Arg	Gln
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Lys	Cys	Leu	Asn	Ala	Leu	Ala	Ser	Leu	Arg	His	Ala	Lys	Trp	Phe	Gln
		195					200					205			
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		210				215						220			
Arg	Asp	Leu	Cys	Asn	Arg	Val	Pro	Thr	Trp	Ala	Pro	Leu	Lys	Gly	Trp
225					230					235					240
Pro	Leu	Glu	Leu	Ile	Cys	Glu	Lys	Ser	Ile	Gly	Thr	Cys	Asn	Arg	Pro
				245					250					255	
Leu	Gly	Ala	Gly	Glu	Ala	Leu	Arg	Arg	Val	Met	Glu	Cys	Leu	Ala	Ser
			260					265					270		
Gly	Ile	Leu	Pro	Gly	Gly	Pro	Gly	Leu	His	Asp	Pro	Cys	Glu	Arg	
		275				280						285			
Asp	Pro	Thr	Asp	Ala	Leu	Ser	Tyr	Met	Thr	Ile	Gln	Gln	Lys	Glu	Asp
		290				295						300			
Ile	Thr	His	Ser	Ala	Gln	His	Ala	Leu	Arg	Leu	Ser	Ala	Phe	Gly	Gln
305					310					315					320
Ile	Tyr	Lys	Val	Leu	Glu	Met	Asp	Pro	Leu	Pro	Ser	Ser	Lys	Pro	Phe
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Gln	Lys	Tyr	Ser	Trp	Ser	Val	Thr	Asp	Lys	Glu	Gly	Ala	Gly	Ser	Ser

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Ala	Leu	Lys	Arg	Pro	Phe	Glu	Asp	Gly	Leu	Gly	Asp	Asp	Lys	Asp	Pro
	355						360					365			
Asn	Lys	Lys	Met	Lys	Arg	Asn	Leu	Arg	Lys	Ile	Leu	Asp	Ser	Lys	Ala
	370						375					380			
Ile	Asp	Leu	Met	Asn	Ala	Leu	Met	Arg	Leu	Asn	Gln	Ile	Arg	Pro	Gly
385					390					395					400
Leu	Gln	Tyr	Lys	Leu	Leu	Ser	Gln	Ser	Gly	Pro	Val	His	Ala	Pro	Val
			405						410					415	
Phe	Thr	Met	Ser	Val	Asp	Val	Asp	Gly	Thr	Thr	Tyr	Glu	Ala	Ser	Gly
			420					425					430		
Pro	Ser	Lys	Lys	Thr	Ala	Lys	Leu	His	Val	Ala	Val	Lys	Val	Leu	Gln
		435					440					445			
Ala	Met	Gly	Tyr	Pro	Thr	Gly	Phe	Asp	Ala	Asp	Ile	Glu	Cys	Met	Ser
	450					455					460				
Ser	Asp	Glu	Lys	Arg	Arg	Gly	Leu	Lys	Tyr	Glu	Leu	Ile	Ser	Glu	Thr
465					470					475					480
Gly	Gly	Ser	His	Asp	Lys	Arg	Phe	Val	Met	Glu	Val	Glu	Val	Asp	Gly
			485						490					495	
Gln	Lys	Phe	Arg	Gly	Ala	Gly	Pro	Asn	Lys	Lys	Val	Ala	Lys	Ala	Ser
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Ala	Ala	Leu	Leu	Ala	Xaa	Gly	Glu	Thr	Val	Phe					
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&lt;210&gt; 4191

&lt;211&gt; 1661

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4191

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480
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&lt;210&gt; 4192

&lt;211&gt; 517

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4192

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165	170	175
Cys Ala Trp Asn Leu Asp Arg Arg Asp Leu Arg Pro Gln Gln Pro Ser		
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Ala Val Val Glu Val Pro Ser Ala Val Leu Cys Leu Ala Phe His Pro		
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&lt;211&gt; 6439

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4193

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 Ser Asp Arg Val Val Ala Ser Asn Val Lys Val Glu Thr Gln Ser Asp  
 50 55 60  
 Glu Glu Asn Gly Arg Ala Cys Glu Met Asn Gly Glu Glu Cys Ala Glu  
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 Arg Asp Gln Gly Ser Ser Ala Leu Ser Gly Val Gly Gly Ile Arg Leu  
 100 105 110  
 Pro Asn Gly Lys Leu Lys Cys Asp Ile Cys Gly Ile Ile Cys Ile Gly  
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&lt;211&gt; 1200

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4195

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&lt;211&gt; 318

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4196

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His	Arg	Arg	Cys	Ser	Trp	Ser	Leu	Leu	Pro	Ala	Met	Gly	Leu	Cys	Thr
			20					25					30		
Phe	Ala	Thr	Leu	Ala	Leu	Ile	Leu	Leu	Val	Leu	Leu	Glu	Ala	Leu	Ala
			35				40						45		
Gln	Ala	Asp	Thr	Gln	Lys	Met	Val	Glu	Ala	Gln	Arg	Gly	Val	Gly	Pro
			50				55					60			
Arg	Ala	Cys	Tyr	Ser	Ile	Trp	Leu	Leu	Leu	Ala	Pro	Thr	Pro	Pro	Leu
65					70					75					80
Ser	His	Cys	Leu	Gln	Ser	Pro	Gln	Lys	Gln	His	Gln	Val	Cys	Gly	Asp
			85						90					95	
Arg	Arg	Leu	Lys	Ala	Ser	Ser	Thr	Asn	Cys	Pro	Ser	Glu	Lys	Cys	Thr
			100					105					110		
Ala	Trp	Ala	Arg	Tyr	Ser	His	Arg	Met	Asp	Ser	Leu	Gln	Lys	Gln	Asp
			115				120						125		
Leu	Arg	Arg	Pro	Lys	Ile	His	Gly	Ala	Val	Gln	Ala	Ser	Pro	Tyr	Gln
			130				135					140			
Pro	Pro	Thr	Leu	Ala	Ser	Leu	Gln	Arg	Leu	Leu	Trp	Val	Arg	Gln	Ala
145					150					155					160
Ala	Thr	Leu	Asn	His	Ile	Asp	Glu	Val	Trp	Pro	Ser	Leu	Phe	Leu	Gly
			165						170					175	
Asp	Ala	Tyr	Ala	Ala	Arg	Asp	Lys	Ser	Lys	Leu	Ile	Gln	Leu	Gly	Ile
			180						185				190		
Thr	His	Val	Val	Asn	Ala	Ala	Ala	Gly	Lys	Phe	Gln	Val	Asp	Thr	Gly
			195				200						205		
Ala	Lys	Phe	Tyr	Arg	Gly	Met	Ser	Leu	Glu	Tyr	Tyr	Gly	Ile	Glu	Ala
			210				215					220			
Asp	Asp	Asn	Pro	Phe	Phe	Asp	Leu	Ser	Val	Tyr	Phe	Leu	Pro	Val	Ala
225					230					235					240
Arg	Tyr	Ile	Arg	Ala	Ala	Leu	Ser	Val	Pro	Gln	Gly	Arg	Val	Leu	Val

	245		250		255
His Cys Ala Met Gly Val Ser Arg Ser Ala Thr Leu Val Leu Ala Phe					
	260		265		270
Leu Met Ile Tyr Glu Asn Met Thr Leu Val Glu Ala Ile Gln Thr Val					
	275		280		285
Gln Ala His Arg Asn Ile Cys Pro Asn Ser Gly Phe Leu Arg Gln Leu					
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Gln Val Leu Asp Asn Arg Leu Gly Arg Glu Thr Gly Arg Phe					
305		310		315	

&lt;210&gt; 4197

&lt;211&gt; 597

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4197

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&lt;210&gt; 4198

&lt;211&gt; 148

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4198

Arg Leu Leu Ser Ile Val Gly Arg Gln Arg Ala Ser Pro Gly Trp Gln					
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Asn Trp Ser Ser Ala Arg Asn Ser Ala Ser Ala Ala Glu Ala Arg Ser					
	20		25		30
Met Ala Leu Pro Thr Gln Ala Gln Val Val Ile Cys Gly Gly Gly Ile					
	35		40		45
Thr Gly Thr Ser Val Ala His His Gln Ser Lys Met Gly Trp Lys Asp					
	50		55		60
Ile Val Leu Leu Glu Gln Gly Arg Leu Ala Ala Gly Ser Thr Arg Phe					
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Cys Ala Gly Ile Leu Ser Thr Ala Arg His Leu Thr Ile Glu Gln Lys					

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<210> 4199
<211> 1769
<212> DNA
<213> Homo sapiens
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240
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300
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360
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420
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540
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960
cctgtcttaa accatgtgta gagctttaaa aacagaaaaa aaaccccata tacttatgac
1020
catcttaaat caagaaaatt gcatatttcc attctgggtct ttctgggcca gatttttata
1080
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1140
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&lt;210&gt; 4200

&lt;211&gt; 186

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4200

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		20						25				30			
Lys	Thr	Thr	Phe	Val	Asn	Val	Ile	Ala	Ser	Gly	Gln	Phe	Ser	Glu	Asp
		35					40					45			
Met	Ile	Pro	Thr	Val	Gly	Phe	Asn	Met	Arg	Lys	Val	Thr	Lys	Gly	Asn
	50					55					60				
Val	Thr	Ile	Lys	Ile	Trp	Asp	Ile	Gly	Gly	Gln	Pro	Arg	Phe	Arg	Ser
	65				70					75				80	
Met	Trp	Glu	Arg	Tyr	Cys	Arg	Gly	Val	Asn	Ala	Ile	Val	Tyr	Met	Ile
			85					90						95	
Asp	Ala	Ala	Asp	Arg	Glu	Lys	Ile	Glu	Ala	Ser	Arg	Asn	Glu	Leu	His
		100						105					110		
Asn	Leu	Leu	Asp	Lys	Pro	Gln	Leu	Gln	Gly	Ile	Pro	Val	Leu	Val	Leu
		115				120						125			
Gly	Asn	Lys	Arg	Asp	Leu	Pro	Gly	Ala	Leu	Asp	Glu	Lys	Glu	Leu	Ile
	130					135					140				
Glu	Lys	Met	Asn	Leu	Ser	Ala	Ile	Gln	Asp	Arg	Glu	Ile	Cys	Cys	Tyr
	145				150				155					160	
Ser	Ile	Ser	Cys	Lys	Glu	Lys	Asp	Asn	Ile	Asp	Ile	Thr	Leu	Gln	Trp
			165					170						175	
Leu	Ile	Gln	His	Ser	Lys	Ser	Arg	Arg	Ser						
		180						185							

<210> 4201  
 <211> 917  
 <212> DNA  
 <213> Homo sapiens

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 780  
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 917

<210> 4202  
 <211> 243  
 <212> PRT  
 <213> Homo sapiens

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 20 25 30  
 Ile Leu Gly Phe Thr Asn Phe Ile Ala His Ala Ile Arg His Cys Tyr  
 35 40 45  
 Gln Pro Val Gly Gly Gly Gly Ser Pro Ser Asp Phe Tyr Leu Cys Ser  
 50 55 60  
 Leu Leu Ala Ser Gly Xaa Ala Ala Leu Ala Cys Val Phe Leu Gly Val



65					70					75				80
Thr	Val	Asp	Arg	Phe	Gly	Arg	Arg	Gly	Ile	Leu	Leu	Leu	Ser	Met
				85					90					95
Leu	Thr	Gly	Ile	Ala	Ser	Leu	Val	Leu	Leu	Gly	Leu	Trp	Asp	Tyr
			100					105					110	
Asn	Glu	Ala	Ala	Ile	Thr	Thr	Phe	Ser	Val	Leu	Gly	Leu	Phe	Ser
		115					120					125		
Gln	Ala	Ala	Ala	Ile	Leu	Ser	Thr	Leu	Leu	Ala	Ala	Glu	Val	Ile
		130					135				140			
Thr	Thr	Val	Arg	Gly	Arg	Gly	Leu	Gly	Leu	Ile	Met	Ala	Leu	Gly
145					150					155				160
Leu	Gly	Gly	Leu	Ser	Gly	Pro	Ala	Gln	Arg	Leu	His	Met	Gly	His
				165					170					175
Ala	Phe	Leu	Gln	His	Val	Val	Leu	Ala	Ala	Cys	Ala	Leu	Leu	Cys
		180						185				190		
Leu	Ser	Ile	Met	Leu	Leu	Pro	Glu	Thr	Lys	Arg	Lys	Leu	Leu	Pro
		195					200					205		
Val	Leu	Arg	Asp	Gly	Glu	Leu	Cys	Arg	Arg	Pro	Ser	Leu	Leu	Arg
		210					215				220			
Pro	Thr	Pro	Thr	Arg	Cys	Asp	His	Val	Pro	Leu	Leu	Ala	Thr	Pro
225					230					235				240
Pro	Ala	Leu												

&lt;210&gt; 4203

&lt;211&gt; 1368

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4203

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720

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 1320  
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 1368

&lt;210&gt; 4204

&lt;211&gt; 80

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4204

Met	Arg	Asn	Asn	Phe	Arg	His	Tyr	Phe	Ile	Glu	Pro	Ser	Gln	Leu	Lys
1				5				10						15	
Leu	Phe	Tyr	Asp	Val	Ile	Thr	Trp	Ile	Val	Thr	Gln	Val	Ala	Ile	Ser
			20					25					30		
Tyr	Thr	Val	Val	Pro	Phe	Val	Leu	Leu	Ser	Ile	Lys	Pro	Ser	Leu	Thr
		35					40				45				
Phe	Tyr	Ser	Ser	Trp	Tyr	Tyr	Cys	Leu	His	Ile	Leu	Gly	Ile	Leu	Val
	50					55				60					
Leu	Leu	Leu	Leu	Pro	Val	Lys	Lys	Asn	Ser	Lys	Lys	Lys	Glu	Tyr	Thr
65					70					75				80	

&lt;210&gt; 4205

&lt;211&gt; 6523

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4205

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&lt;210&gt; 4206

&lt;211&gt; 829

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4206

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Ser Val Ile Val Glu Val Arg Ser Asp Asp Asp Lys Asp Glu Asp Thr			
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His Ser Arg Lys Ser Thr Val Thr Asp Glu Ser Glu Met Gln Asp Met			
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Met Thr Arg Gly Asn Leu Gly Leu Leu Glu Gln Ala Ile Ala Leu Lys			
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Ala Glu Gln Val Arg Thr Val Cys Glu Pro Gly Cys Pro Pro Ala Glu			
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Gln Ser Gln Leu Gly Leu Gly Glu Pro Gly Lys Ala Ala Lys Pro Leu			
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Asp Thr Val Arg Lys Ser Tyr Tyr Ser Lys Asp Pro Ser Arg Ala Glu			
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Lys Arg Glu Ile Lys Cys Pro Thr Pro Gly Cys Asp Gly Thr Gly His			
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Val Thr Gly Leu Tyr Pro His His Arg Ser Leu Ser Gly Cys Pro His			
165	170	175	
Lys Asp Arg Ile Pro Pro Glu Ile Leu Ala Met His Glu Asn Val Leu			
180	185	190	
Lys Cys Pro Thr Pro Gly Cys Thr Gly Gln Gly His Val Asn Ser Asn			
195	200	205	
Arg Asn Thr His Arg Ser Leu Ser Gly Cys Pro Ile Ala Ala Ala Glu			
210	215	220	
Lys Leu Ala Lys Ser His Glu Lys Gln Gln Pro Gln Thr Gly Asp Pro			
225	230	235	240
Ser Lys Ser Ser Ser Asn Ser Asp Arg Ile Leu Arg Pro Met Cys Phe			
245	250	255	
Val Lys Gln Leu Glu Val Pro Pro Tyr Gly Ser Tyr Arg Pro Asn Val			
260	265	270	
Ala Pro Ala Thr Pro Arg Ala Asn Leu Ala Lys Glu Leu Glu Lys Phe			
275	280	285	
Ser Lys Val Thr Phe Asp Tyr Ala Ser Phe Asp Ala Gln Val Phe Gly			
290	295	300	
Lys Arg Met Leu Ala Pro Lys Ile Gln Thr Ser Glu Thr Ser Pro Lys			
305	310	315	320
Ala Phe Gln Cys Phe Asp Tyr Ser Gln Asp Ala Glu Ala Ala His Met			
325	330	335	
Ala Ala Thr Ala Ile Leu Asn Leu Ser Thr Arg Cys Trp Glu Met Pro			
340	345	350	
Glu Asn Leu Ser Thr Lys Pro Gln Asp Leu Pro Ser Lys Ser Val Asp			
355	360	365	
Ile Glu Val Asp Glu Asn Gly Thr Leu Asp Leu Ser Met His Lys His			
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Arg Lys Arg Glu Asn Ala Phe Pro Ser Ser Ser Ser Cys Ser Ser Ser			
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Pro Gly Val Lys Ser Pro Asp Ala Ser Gln Arg His Ser Ser Thr Ser			
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Gln Asp Glu Trp Asp Arg Pro Leu Asp Tyr Thr Lys Pro Ser Arg Leu			

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Leu Ser Lys Asp Ile Lys Lys Glu Leu Leu Thr Cys Pro Thr Pro Gly
      500              505              510
Cys Asp Gly Ser Gly His Ile Thr Gly Asn Tyr Ala Ser His Arg Ser
      515              520              525
Leu Ser Gly Cys Pro Leu Ala Asp Lys Ser Leu Arg Asn Leu Met Ala
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545              550              555              560
Gly His Ile Thr Gly Asn Tyr Ala Ser His Arg Ser Leu Ser Gly Cys
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Pro Arg Ala Lys Lys Ser Gly Val Lys Val Ala Pro Thr Lys Asp Asp
      580              585              590
Lys Glu Asp Pro Glu Leu Met Lys Cys Pro Val Pro Gly Cys Val Gly
      595              600              605
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Cys Pro Leu Ala Ala Arg Arg Gln Lys Glu Gly Ser Leu Asn Gly Ser
625              630              635              640
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      675              680              685
Lys Leu Ser Gly Asp Glu Val Leu Ser Pro Lys Phe Lys Thr Ser Asp
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705              710              715              720
Asp Leu Asn Glu Ser Asn Ser Glu Met Glu Ala Ala Met Val Gln Leu
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Gln Ser Gln Ile Ser Ser Met Glu Lys Asn Leu Lys Asn Ile Glu Glu
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Glu Asn Lys Leu Ile Glu Glu Gln Asn Glu Ala Leu Phe Leu Glu Leu
      755              760              765
Ser Gly Leu Ser Gln Ala Leu Ile Gln Ser Leu Ala Asn Ile Arg Leu
      770              775              780
Pro His Met Glu Pro Ile Cys Glu Gln Asn Phe Asp Ala Tyr Val Ser
785              790              795              800
Thr Leu Thr Asp Met Tyr Ser Asn Gln Asp Pro Glu Asn Lys Asp Leu
      805              810              815
Leu Glu Ser Ile Lys Gln Ala Val Arg Gly Ile Gln Val
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&lt;210&gt; 4207

&lt;211&gt; 1016

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens



&lt;400&gt; 4207

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&lt;210&gt; 4208

&lt;211&gt; 193

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4208

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		20					25					30			
Ile	Asp	Arg	Arg	Thr	Ser	Thr	Pro	Asn	Ser	Arg	Ile	Gln	Arg	Ala	Thr
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Thr	Val	Ser	Gln	Lys	Lys	Ser	Ser	Lys	Leu	Cys	Thr	Cys	Thr	Glu	Pro
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Ile	Arg	Lys	Val	Pro	Val	Ser	Lys	Thr	Pro	Lys	Lys	Thr	His	Ser	Asp
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<210> 4210

<211> 863

<212> PRT

<213> Homo sapiens

<400> 4210

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Ser	Arg	Pro	Glu	Arg	Pro	Asp	Leu	Val	Phe	Glu	Glu	Glu	Asp	Leu	Pro
		20					25						30		
Tyr	Glu	Glu	Glu	Ile	Met	Arg	Asn	Gln	Phe	Ser	Val	Lys	Cys	Trp	Leu
	35					40						45			
Arg	Tyr	Ile	Glu	Phe	Lys	Gln	Gly	Ala	Pro	Lys	Pro	Arg	Leu	Asn	Gln
	50				55						60				
Leu	Tyr	Glu	Arg	Ala	Leu	Lys	Leu	Leu	Pro	Cys	Ser	Tyr	Lys	Leu	Trp
65				70					75				80		
Tyr	Arg	Tyr	Leu	Lys	Ala	Arg	Arg	Ala	Gln	Val	Lys	His	Arg	Cys	Val
			85					90					95		
Thr	Asp	Pro	Ala	Tyr	Glu	Asp	Val	Asn	Asn	Cys	His	Glu	Arg	Ala	Phe
		100					105						110		
Val	Phe	Met	His	Lys	Met	Pro	Arg	Leu	Trp	Leu	Asp	Tyr	Cys	Gln	Phe
	115					120					125				
Leu	Met	Asp	Gln	Gly	Arg	Val	Thr	His	Thr	Arg	Arg	Thr	Phe	Asp	Arg
	130				135						140				
Ala	Leu	Arg	Ala	Leu	Pro	Ile	Thr	Gln	His	Ser	Arg	Ile	Trp	Pro	Leu
145				150						155			160		
Tyr	Leu	Arg	Phe	Leu	Arg	Ser	His	Pro	Leu	Pro	Glu	Thr	Ala	Val	Arg
			165					170					175		
Gly	Tyr	Arg	Arg	Phe	Leu	Lys	Leu	Ser	Pro	Glu	Ser	Ala	Glu	Glu	Tyr
		180					185						190		
Ile	Glu	Tyr	Leu	Lys	Ser	Ser	Asp	Arg	Leu	Asp	Glu	Ala	Ala	Gln	Arg
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Leu	Ala	Thr	Val	Val	Asn	Asp	Glu	Arg	Phe	Val	Ser	Lys	Ala	Gly	Lys
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Ser	Asn	Tyr	Gln	Leu	Trp	His	Glu	Leu	Cys	Asp	Leu	Ile	Ser	Gln	Asn
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Pro	Asp	Lys	Val	Gln	Ser	Leu	Asn	Val	Asp	Ala	Ile	Ile	Arg	Gly	Gly
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Leu	Thr	Arg	Phe	Thr	Asp	Gln	Leu	Gly	Lys	Leu	Trp	Cys	Ser	Leu	Ala
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Asp	Tyr	Tyr	Ile	Arg	Ser	Gly	His	Phe	Glu	Lys	Ala	Arg	Asp	Val	Tyr
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Glu	Glu	Ala	Ile	Arg	Thr	Val	Met	Thr	Val	Arg	Asp	Phe	Thr	Gln	Val
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Phe	Asp	Ser	Tyr	Ala	Gln	Phe	Glu	Glu	Ser	Met	Ile	Ala	Ala	Lys	Met
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Glu	Thr	Ala	Ser	Glu	Leu	Gly	Arg	Glu	Glu	Asp	Asp	Val	Asp	Leu	
		325					330					335			
Glu	Leu	Arg	Leu	Ala	Arg	Phe	Glu	His	Leu	Ile	Ser	Arg	Arg	Pro	Leu

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 355 360 365  
 Trp His Lys Arg Val Ala Leu His Gln Gly Arg Pro Arg Glu Ile Ile  
 370 375 380  
 Asn Thr Tyr Thr Glu Ala Val Gln Thr Val Asp Pro Phe Lys Ala Thr  
 385 390 395 400  
 Gly Lys Pro His Thr Leu Trp Val Ala Phe Ala Lys Phe Tyr Glu Asp  
 405 410 415  
 Asn Gly Gln Leu Asp Asp Ala Arg Val Ile Leu Glu Lys Ala Thr Lys  
 420 425 430  
 Val Asn Phe Lys Gln Val Asp Asp Leu Ala Ser Val Trp Cys Gln Cys  
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 Gly Glu Leu Glu Leu Arg His Glu Asn Tyr Asp Glu Ala Leu Arg Leu  
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 Ala Val Tyr Asp Arg Ile Leu Asp Leu Arg Ile Ala Thr Pro Gln Ile  
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 545 550 555 560  
 Val Ser Asp Ile Trp Ser Thr Tyr Leu Thr Lys Phe Ile Ala Arg Tyr  
 565 570 575  
 Gly Gly Arg Lys Leu Glu Arg Ala Arg Asp Leu Phe Glu Gln Ala Leu  
 580 585 590  
 Asp Gly Cys Pro Pro Lys Tyr Ala Lys Thr Leu Tyr Leu Leu Tyr Ala  
 595 600 605  
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 610 615 620  
 Glu Arg Ala Thr Arg Ala Val Glu Pro Ala Gln Gln Tyr Asp Met Phe  
 625 630 635 640  
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 645 650 655  
 Arg Gly Ile Tyr Gln Lys Ala Ile Glu Val Leu Ser Asp Glu His Ala  
 660 665 670  
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 675 680 685  
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 690 695 700  
 Pro Arg Thr Thr Gly Ala Phe Trp Gln Thr Trp Lys Asp Phe Glu Val  
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 725 730 735  
 Ser Val Gln Ala Thr Tyr Asn Thr Gln Val Asn Phe Met Ala Ser Gln  
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 Met Leu Lys Val Ser Gly Ser Ala Thr Gly Thr Val Ser Asp Leu Ala  
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770	775	780
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785	790	795
Ser Lys Ile Leu Phe Val Arg Ser Asp Ala Ser Arg Glu Glu Leu Ala		800
	805	810
Glu Leu Ala Gln Gln Val Asn Pro Glu Glu Ile Gln Leu Gly Glu Asp		815
	820	825
Glu Asp Glu Asp Glu Met Asp Leu Glu Pro Asn Glu Val Arg Leu Glu		830
	835	840
Gln Gln Ser Val Pro Ala Ala Val Phe Gly Ser Leu Lys Glu Asp		845
	850	855
		860

&lt;210&gt; 4211

&lt;211&gt; 456

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4211

```

ggggatcgct agccccagc ttctcagaac taaatatgaa agctcttgct cgtctacgct
60
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120
agctggaaaa gagacgctcc aactgcgac gacaaccaac acatgggaca agctgagaaa
180
gtgcactcag gacttcgct gatgtcacca ccatggcaat acttagatcc tgttgcttaa
240
gcataccatg tcgctgaaag agggaaagaa aatgaaagag cgtcctttaa aaagacgtaa
300
aattacactt tcactactac tggttcctat ccttggtcag taaagtacaa cctggccagg
360
gtttaccagc tctacctgca actgagtcag aaaggcaaag tagtcagctt tgtccatgct
420
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456

```

&lt;210&gt; 4212

&lt;211&gt; 81

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4212

Met Leu Lys Gln Gln Asp Leu Ser Ile Ala Met Val Val Thr Ser Arg	
1	5 10 15
Glu Val Leu Ser Ala Leu Ser Gln Leu Val Pro Cys Val Gly Cys Arg	
	20 25 30
Arg Ser Val Glu Arg Leu Phe Ser Ser Leu Arg Val Trp Lys Ser Ala	
	35 40 45
Leu Asp Pro Tyr Ser Arg Pro Arg Glu Ser Val Val Thr Lys Arg Arg	
	50 55 60
Arg Ala Arg Ala Phe Ile Phe Ser Ser Glu Lys Leu Gly Ala Ser Asp	
65	70 75 80
Pro	

<210> 4213  
 <211> 383  
 <212> DNA  
 <213> Homo sapiens

<400> 4213  
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 atggaggcac gcgagggcat gcacctcaag aacgtggact tccgtgagtt catggtggcc  
 120  
 ttcccggaac eggcccgcc gccctggtac gctgctcgt cggccttctg ggccggggc  
 180  
 ctgctcacgc tgcgtggcc gctgcgagtg ctggccgagt accgcacggc ctacgcgcac  
 240  
 taccacgtgg agaagctggt tggcctggag ggcccggtt cggccagcag cgcaggcggt  
 300  
 ggctcagcc ccagcgatga gctgctgccc ccgctacccc accgctgcc gcgggtcaac  
 360  
 acagtagaca gcacggagct cgg  
 383

<210> 4214  
 <211> 127  
 <212> PRT  
 <213> Homo sapiens

<400> 4214  
 Xaa Ala Tyr Leu Cys Gln Arg Ala Arg Phe Phe Ala Glu Asn Glu Gly  
 1 5 10 15  
 Leu Asp Asp Tyr Met Glu Ala Arg Glu Gly Met His Leu Lys Asn Val  
 20 25 30  
 Asp Phe Arg Glu Phe Met Val Ala Phe Pro Asp Pro Ala Arg Pro Pro  
 35 40 45  
 Trp Tyr Ala Cys Ser Ser Ala Phe Trp Ala Ala Ala Leu Leu Thr Leu  
 50 55 60  
 Ser Trp Pro Leu Arg Val Leu Ala Glu Tyr Arg Thr Ala Tyr Ala His  
 65 70 75 80  
 Tyr His Val Glu Lys Leu Phe Gly Leu Glu Gly Pro Gly Ser Ala Ser  
 85 90 95  
 Ser Ala Gly Gly Gly Leu Ser Pro Ser Asp Glu Leu Leu Pro Pro Leu  
 100 105 110  
 Thr His Arg Leu Pro Arg Val Asn Thr Val Asp Ser Thr Glu Leu  
 115 120 125

<210> 4215  
 <211> 939  
 <212> DNA  
 <213> Homo sapiens

<400> 4215  
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 ctggaagaaa gcaaagaaat ggatatcaaa cgtaaagaaa ataaaggcaa tgatacccct  
 120

ttggccctag agagtacaaa cactgaaaag gagacaagcc tggaggaaac aaaaatcggg  
 180  
 gagatcctga tccagggctt gacagaagat atgggtgactg ttttaatccg ggcctgcgtg  
 240  
 agcatgctgg gagtcctgt ggaccagat actttgcatg ccaccctttg tttctgtttg  
 300  
 aggtcactc ggggccccca attagccatg atgtttgcag aactgaagaa taccgcgatg  
 360  
 atcttgaatt tgaccagag ctcaggcttc aatgggttta ctcccctggt cacccttctc  
 420  
 ttaagacaca tcattgagga cccctgtacc ctctgcata ccatggaaaa ggttggtcgc  
 480  
 tcagcagcta caagtggagc tggtagcact acctctggtg ttgtgtctgg cagcctcggc  
 540  
 tctcgggaga tcaactacat cctcgtgtc ctggggccag ccgcatgccg caatccagac  
 600  
 atattcacag aagtggccaa ctgctgtatc cgcacgccc ttctgcccc tcgagggtca  
 660  
 ggaactgctt cagatgatga atttgagaat cttagaatta aaggccctaa tgctgtacag  
 720  
 ctggtgaaga ccaccctttt gaagccctca cctctgctg tcatecctga tactatcaag  
 780  
 gaagtgatct atgatatgct gaatgctctg gctgcatacc atgctccaga ggaagcagat  
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 aaatctgac ctaaacctgg gggtatgacc caagaggttg gccagctcct gcaagacatg  
 900  
 ggtgatgatg tataccagca gtaccggtca cttacgcgt  
 939

&lt;210&gt; 4216

&lt;211&gt; 287

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4216

Met	Asp	Ile	Lys	Arg	Lys	Glu	Asn	Lys	Gly	Asn	Asp	Thr	Pro	Leu	Ala
1				5					10					15	
Leu	Glu	Ser	Thr	Asn	Thr	Glu	Lys	Glu	Thr	Ser	Leu	Glu	Glu	Thr	Lys
			20					25					30		
Ile	Gly	Glu	Ile	Leu	Ile	Gln	Gly	Leu	Thr	Glu	Asp	Met	Val	Thr	Val
		35				40					45				
Leu	Ile	Arg	Ala	Cys	Val	Ser	Met	Leu	Gly	Val	Pro	Val	Asp	Pro	Asp
	50					55					60				
Thr	Leu	His	Ala	Thr	Leu	Cys	Phe	Cys	Leu	Arg	Val	Thr	Arg	Gly	Pro
65					70					75				80	
Gln	Leu	Ala	Met	Met	Phe	Ala	Glu	Leu	Lys	Asn	Thr	Arg	Met	Ile	Leu
			85						90					95	
Asn	Leu	Thr	Gln	Ser	Ser	Gly	Phe	Asn	Gly	Phe	Thr	Pro	Leu	Val	Thr
			100					105					110		
Leu	Leu	Leu	Arg	His	Ile	Ile	Glu	Asp	Pro	Cys	Thr	Leu	Arg	His	Thr
		115					120					125			
Met	Glu	Lys	Val	Val	Arg	Ser	Ala	Ala	Thr	Ser	Gly	Ala	Gly	Ser	Thr
	130					135					140				
Thr	Ser	Gly	Val	Val	Ser	Gly	Ser	Leu	Gly	Ser	Arg	Glu	Ile	Asn	Tyr



145                      150                      155                      160  
 Ile Leu Arg Val Leu Gly Pro Ala Ala Cys Arg Asn Pro Asp Ile Phe  
                                  165                      170                      175  
 Thr Glu Val Ala Asn Cys Cys Ile Arg Ile Ala Leu Pro Ala Pro Arg  
                                  180                      185                      190  
 Gly Ser Gly Thr Ala Ser Asp Asp Glu Phe Glu Asn Leu Arg Ile Lys  
                                  195                      200                      205  
 Gly Pro Asn Ala Val Gln Leu Val Lys Thr Thr Pro Leu Lys Pro Ser  
                                  210                      215                      220  
 Pro Leu Pro Val Ile Pro Asp Thr Ile Lys Glu Val Ile Tyr Asp Met  
 225                                   230                                   235                                   240  
 Leu Asn Ala Leu Ala Ala Tyr His Ala Pro Glu Glu Ala Asp Lys Ser  
                                  245                                   250                                   255  
 Asp Pro Lys Pro Gly Val Met Thr Gln Glu Val Gly Gln Leu Leu Gln  
                                  260                                   265                                   270Met Gly Asp Asp  
 Val Tyr Gln Gln Tyr Arg Ser Leu Thr Arg  
                                  275                                   280                                   285

&lt;210&gt; 4217

&lt;211&gt; 619

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4217

acacacacac gcacacaaaa ctcagccaca ggctcaccag ggtctctctc aacatgcaca  
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 catacacaca cacacccctc agtcataggc tcacaagagt ctctcttgtc tctctctcat  
 120  
 acatacacac acacacacaa ccagccacag gccacaaaag gtgtctctct ctttgtccct  
 180  
 gtctgtctct tcgcactcac acacacacat ctcagccaca ggcccaccag agtctgtctg  
 240  
 tctctttgtc tctctcactc tctctcacac acatacacct cagccacagg ccacaaaggg  
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 tctctctctt tgtccctggc tcctctctct cgcacactcc cacacacaca catacagctc  
 360  
 agccacaggg ccacgagggg gtctctctct ctctctctct ctcacacaca cacacacaca  
 420  
 cacacacgcc tgtgcagctc cacagggggc tggggcagga gacagatctg aatacacata  
 480  
 ccaccctgtg ctgtgagtg ccactcccat ccaacaactg agactttctg ttactggggc  
 540  
 aagggtttct gccaaactca ctcccttat aatgaatgaa ttatccctca gaaggttcca  
 600  
 cagtctctcc ctggcgcg  
 619

&lt;210&gt; 4218

&lt;211&gt; 155

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4218

Met His Thr Tyr Thr His Thr Pro Leu Ser His Arg Leu Thr Arg Val

1	5	10	15
Ser Leu Val	Ser Leu Ser Tyr Ile His Thr His Thr Gln Pro Ala Thr		
	20	25	30
Gly Pro Gln Arg Cys Leu Ser Leu Cys Pro Cys Leu Leu Ser Arg Thr			
	35	40	45
His Thr His Thr Ser Gln Pro Gln Ala His Gln Ser Leu Ser Val Ser			
	50	55	60
Leu Ser Leu Ser Leu Ser Leu Thr His Ile His Leu Ser His Arg Pro			
65	70	75	80
Thr Arg Val Ser Leu Leu Val Pro Gly Ser Ser Leu Ser His Thr Pro			
	85	90	95
Thr His Thr His Thr Ala Gln Pro Gln Ala His Glu Gly Val Ser Leu			
	100	105	110
Ser Leu Ser Leu Ser His Thr His Thr His Thr His Thr Pro Val Gln			
	115	120	125
Leu His Arg Gly Leu Gly Gln Glu Thr Asp Leu Asn Thr His Thr Thr			
	130	135	140
Leu Cys Cys Glu Trp Pro Leu Pro Ser Asn Asn			
145	150	155	

&lt;210&gt; 4219

&lt;211&gt; 774

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4219

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60

ccgctgcagc agcggccaag gcagcgacaa cagcagcgtg ctgagcgggg agtccccgc  
120

ggccatgggg aagacggccc tgttctacca cagcggcggc agcagcggct acgagagcgt  
180

gatgcgggac agcagaggcca ccggcagcgc gtcctcggcg caggactcca cgagcgagaa  
240

cagcagctcc gtgggcggca ggtgccggag cctcaagacc ccgaagaaac gctccaatcc  
300

aggttctcag agacggaggc ttatcccagc actatccctg gacacctett ccctgtgag  
360

aaaaccccc aacagcacag gcgtccgctg ggtggatggn nccccttgcg gagcagccc  
420

aggggccttg gggaaccttt gagattaaag tctnatgaaa tcgatgacgt ggagcgctg  
480

cagcggcgac gagggggtgc cagcaaggag gccatgtgct tcaatgcaaa gctgaagatt  
540

ctggaacacc gccagcagag gatcgccgag gtccgcgcga agtacgagtg gctgatgaag  
600

gagctggagg cgaccaaaca gtatctgatg ctggatccca acaagtggct cagtgaattt  
660

gacttgagc aggtttggga gctggattcc ctggagtacc tggaggcact ggagtgtgtg  
720

acggagcgcc tggagagccg tgtcaacttc tgcaaggccc atctcatgat gctc  
774

&lt;210&gt; 4220

<211> 258  
 <212> PRT  
 <213> Homo sapiens

<400> 4220  
 Xaa Gly Arg Ala Pro Ala Pro Val Ala Leu Gln Gln Asp His Ala Pro  
 1 5 10 15  
 Ala Glu Ala Pro Pro Leu Gln Gln Arg Pro Arg Gln Arg Gln Gln Gln  
 20 25 30  
 Arg Ala Glu Arg Gly Ala Pro Ala Gly His Gly Glu Asp Gly Pro Val  
 35 40 45  
 Leu Pro Gln Arg Arg Gln Gln Arg Leu Arg Glu Arg Asp Ala Gly Gln  
 50 55 60  
 Arg Gly His Arg Gln Arg Val Leu Gly Ala Gly Leu His Glu Arg Glu  
 65 70 75 80  
 Gln Gln Leu Arg Gly Arg Gln Val Pro Glu Pro Gln Asp Pro Glu Glu  
 85 90 95  
 Thr Leu Gln Ser Arg Phe Ser Glu Thr Glu Ala Tyr Pro Ser Thr Ile  
 100 105 110  
 Pro Gly His Leu Phe Pro Cys Glu Lys Thr Pro Gln Gln His Arg Arg  
 115 120 125  
 Pro Leu Gly Gly Trp Xaa Pro Leu Arg Ser Ser Pro Arg Gly Leu Gly  
 130 135 140  
 Glu Pro Leu Arg Leu Lys Ser Xaa Glu Ile Asp Asp Val Glu Arg Leu  
 145 150 155 160  
 Gln Arg Arg Arg Gly Gly Ala Ser Lys Glu Ala Met Cys Phe Asn Ala  
 165 170 175  
 Lys Leu Lys Ile Leu Glu His Arg Gln Gln Arg Ile Ala Glu Val Arg  
 180 185 190  
 Ala Lys Tyr Glu Trp Leu Met Lys Glu Leu Glu Ala Thr Lys Gln Tyr  
 195 200 205  
 Leu Met Leu Asp Pro Asn Lys Trp Leu Ser Glu Phe Asp Leu Glu Gln  
 210 215 220  
 Val Trp Glu Leu Asp Ser Leu Glu Tyr Leu Glu Ala Leu Glu Cys Val  
 225 230 235 240  
 Thr Glu Arg Leu Glu Ser Arg Val Asn Phe Cys Lys Ala His Leu Met  
 245 250 255  
 Met Leu

<210> 4221  
 <211> 789  
 <212> DNA  
 <213> Homo sapiens

<400> 4221  
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 tcagccccat cttggcacag ttctcatgca gaatattgca cccagtgtga actaacgcta  
 120  
 gaagcttcaa actgtataaa tttaaagtga tttgcatatt ataaaaataa agataaacat  
 180  
 atacatattt tacactagtt atggaacagc aatgaacgtc agtcgatccc tctttcacat  
 240

ttaacagaac tgaatctga gtgctctaaa tactgccacc tgtactgtaa ctatggctta  
 300  
 tatgtgcacg gaaaacaaaa tccctgagaa gccattcgac tttttttttt tttcttttct  
 360  
 tcaagtagcg cgctccttgg aggatcacag ttctgaggtt caggttgtaa aacatttgct  
 420  
 ccatgttctc gtccatgctt cccccacca cccctcccc acctcttccc cagtcgtcca  
 480  
 aaaagcacc tgcaagcacg cgttgtcact caagttcaca gaacacgctg gggtagtgct  
 540  
 agagggtctg ccagggtgaa aagatgggtc aggtgttcag atgctctctt ttctccatgg  
 600  
 aaattccaca gccacaaacg tcaactggtt ctgtgctttt caccaacatt ctcccttaa  
 660  
 aaattgggtg tcctaaagtc acagtttggg tacagtaaaa atgatggcat aaggaaaaga  
 720  
 agcactatct ttccactta atttccaag aaagtatgaa gatacttga acaggggctg  
 780  
 atcacagtc  
 789

&lt;210&gt; 4222

&lt;211&gt; 127

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4222

Met	Ala	Tyr	Met	Cys	Thr	Glu	Asn	Lys	Ile	Pro	Glu	Lys	Pro	Phe	Asp
1				5					10					15	
Phe	Phe	Phe	Phe	Ser	Phe	Leu	Gln	Val	Ala	Arg	Ser	Leu	Glu	Asp	His
			20					25					30		
Ser	Ser	Glu	Val	Gln	Val	Val	Lys	His	Leu	Leu	His	Val	Leu	Val	His
		35				40						45			
Ala	Ser	Pro	His	His	Pro	Leu	Pro	Thr	Ser	Ser	Pro	Val	Val	Gln	Lys
	50					55					60				
Ala	Pro	Cys	Lys	His	Ala	Leu	Ser	Leu	Lys	Phe	Thr	Glu	His	Ala	Gly
65				70					75					80	
Val	Ser	Ala	Glu	Gly	Leu	Pro	Gly	Ala	Lys	Asp	Gly	Pro	Gly	Val	Gln
			85					90					95		
Met	Leu	Ser	Phe	Leu	His	Gly	Asn	Ser	Thr	Ala	Thr	Asn	Val	Thr	Gly
		100					105						110		
Phe	Cys	Ala	Phe	His	Gln	His	Ser	Ser	Leu	Lys	Asn	Trp	Cys	Ser	
		115					120					125			

&lt;210&gt; 4223

&lt;211&gt; 852

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4223

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 gaggccgtgg cctatttgca ctcaactcaag atcgtgcaca ggaatctcaa gctggagaac  
 120

ctggtttact acaaccggct gaagaactcg aagattgtca tcagtgactt ccatctggct  
 180  
 aagctagaaa atggcctcat caaggagccc tgtgggaccc ccgaagattt tgcccccaa  
 240  
 ggggaaggcc ggcagcggta tggacgcctt gtggactgct gggccattgg agtcatcatg  
 300  
 tacatcctgc tttcaggcaa tccacctttc tatgaggagg tggaagaaga tgattatgag  
 360  
 aaccatgata agaattcttt ccgaagatc ctggctgggtg actatgagtt tgactctcca  
 420  
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 480  
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 600  
 gccaaagtga agaaggctgt ccgagtgacc accctcatga aacggctccg ggcaccagag  
 660  
 cagtcacgca cggctgcagc ccagtcggcc tcagccacag aactgccac ccccggggct  
 720  
 gcagaccgta gtgccacccc agccacagat ggaagtgcc cccagccac tgatggcagt  
 780  
 gtcaccccag ccaccgatgg aagcatcact ccagccattg atgggagtgt caccacagcc  
 840  
 actgacagga gc  
 852

&lt;210&gt; 4224

&lt;211&gt; 284

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4224

Ile	Leu	Asp	Gln	Gly	Tyr	Tyr	Ser	Glu	Arg	Asp	Thr	Ser	Asn	Val	Val
1				5					10					15	
Arg	Gln	Val	Leu	Glu	Ala	Val	Ala	Tyr	Leu	His	Ser	Leu	Lys	Ile	Val
			20					25					30		
His	Arg	Asn	Leu	Lys	Leu	Glu	Asn	Leu	Val	Tyr	Tyr	Asn	Arg	Leu	Lys
		35					40					45			
Asn	Ser	Lys	Ile	Val	Ile	Ser	Asp	Phe	His	Leu	Ala	Lys	Leu	Glu	Asn
	50					55				60					
Gly	Leu	Ile	Lys	Glu	Pro	Cys	Gly	Thr	Pro	Glu	Asp	Phe	Ala	Pro	Gln
65				70				75						80	
Gly	Glu	Gly	Arg	Gln	Arg	Tyr	Gly	Arg	Pro	Val	Asp	Cys	Trp	Ala	Ile
			85					90						95	
Gly	Val	Ile	Met	Tyr	Ile	Leu	Leu	Ser	Gly	Asn	Pro	Pro	Phe	Tyr	Glu
			100					105					110		
Glu	Val	Glu	Glu	Asp	Asp	Tyr	Glu	Asn	His	Asp	Lys	Asn	Leu	Phe	Arg
		115				120						125			
Lys	Ile	Leu	Ala	Gly	Asp	Tyr	Glu	Phe	Asp	Ser	Pro	Tyr	Trp	Asp	Asp
	130					135						140			
Ile	Ser	Gln	Ala	Ala	Lys	Asp	Leu	Val	Thr	Arg	Leu	Met	Glu	Val	Glu
145					150					155				160	
Gln	Asp	Gln	Arg	Ile	Thr	Ala	Glu	Glu	Ala	Ile	Ser	His	Glu	Trp	Ile

165 170 175  
 Ser Gly Asn Ala Ala Ser Asp Lys Asn Ile Lys Asp Gly Val Cys Ala  
 180 185 190  
 Gln Ile Glu Lys Asn Phe Ala Arg Ala Lys Trp Lys Lys Ala Val Arg  
 195 200 205  
 Val Thr Thr Leu Met Lys Arg Leu Arg Ala Pro Glu Gln Ser Ser Thr  
 210 215 220  
 Ala Ala Ala Gln Ser Ala Ser Ala Thr Asp Thr Ala Thr Pro Gly Ala  
 225 230 235 240  
 Ala Asp Arg Ser Ala Thr Pro Ala Thr Asp Gly Ser Ala Thr Pro Ala  
 245 250 255  
 Thr Asp Gly Ser Val Thr Pro Ala Thr Asp Gly Ser Ile Thr Pro Ala  
 260 265 270  
 Ile Asp Gly Ser Val Thr Pro Ala Thr Asp Arg Ser  
 275 280

<210> 4225  
 <211> 470  
 <212> DNA  
 <213> Homo sapiens

<400> 4225  
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 acgccaacct tccctgaaat atcctatgat gtgtatgttt atacagacat gagacctggg  
 120  
 gacaggggtcc tacagttaac tgcagtcgac gcagacgaag ggtcaaatgg ggagatcaca  
 180  
 tatgaaatcc ttgttggggc tcaggagac ttcacatca ataaaacaac agggcttacc  
 240  
 accatcgctc caggggtgga aatgatagtc gggcggactt acgcactccc ggtccaagca  
 300  
 gcggataatg ctctcctgc aaagcaaagg actcccatct gcactgtgta tattgaagtg  
 360  
 cttccaccaa ataataaaag cctcctcgc tcccacagc tgatgtatag ccttgaaatt  
 420  
 agtgaagcca tgagggttgg tgctgtttta ttaaacttac aggcaactga  
 470

<210> 4226  
 <211> 156  
 <212> PRT  
 <213> Homo sapiens

<400> 4226  
 Xaa Val Gln Glu Ser Glu Pro Val Ile Val Asn Ile Gln Val Met Asp  
 1 5 10 15  
 Ala Asn Asp Asn Thr Pro Thr Phe Pro Glu Ile Ser Tyr Asp Val Tyr  
 20 25 30  
 Val Tyr Thr Asp Met Arg Pro Gly Asp Arg Val Leu Gln Leu Thr Ala  
 35 40 45  
 Val Asp Ala Asp Glu Gly Ser Asn Gly Glu Ile Thr Tyr Glu Ile Leu  
 50 55 60  
 Val Gly Ala Gln Gly Asp Phe Ile Ile Asn Lys Thr Thr Gly Leu Ile

65		70		75		80									
Thr	Ile	Ala	Pro	Gly	Val	Glu	Met	Ile	Val	Gly	Arg	Thr	Tyr	Ala	Leu
				85					90					95	
Pro	Val	Gln	Ala	Ala	Asp	Asn	Ala	Pro	Pro	Ala	Lys	Gln	Arg	Thr	Pro
		100					105						110		
Ile	Cys	Thr	Val	Tyr	Ile	Glu	Val	Leu	Pro	Pro	Asn	Asn	Gln	Ser	Pro
		115					120					125			
Pro	Arg	Phe	Pro	Gln	Leu	Met	Tyr	Ser	Leu	Glu	Ile	Ser	Glu	Ala	Met
	130					135				140					
Arg	Val	Gly	Ala	Val	Leu	Leu	Asn	Leu	Gln	Ala	Thr				
145					150					155					

&lt;210&gt; 4227

&lt;211&gt; 1199

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4227

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nnaagcttat ggccagtgtt aatttggtat ttcttaaata actttccctt tcatttttaa
60
attataaatt taacttctaa catgttttat ggttaaaatt gtactttttt cctttagcga
120
cattcaaatg catcacaatc actttgtgaa attgttcgcc tgagcagaga ccagatgtta
180
caaattcaga acagtacaga gcccagcccc ctgcttgcca ctctagaaaa gcaagaaatt
240
atagagcagc ttctatcaaa tttttccac aaggagaaaa atgagtcagc catagtcagt
300
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<212> PRT

<213> Homo sapiens

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<211> 1612

<212> DNA

<213> Homo sapiens



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<213> Homo sapiens

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&lt;210&gt; 4231

&lt;211&gt; 1588

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4231

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&lt;210&gt; 4232

&lt;211&gt; 434

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4232

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<213> Homo sapiens

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Glu	Glu	Ser	Glu	Gly	Gln	Glu	Lys	Ser	Gly	Thr	Arg	Cys	Arg	Ser	Arg
			85						90					95	
Ser	Trp	Ile	Gln	Lys	Pro	Asp	Ser	Val	Cys	Ser	Leu	Val	Glu	Leu	Ser
			100					105					110		
Asp	Thr	Gln	Asp	Glu	Thr	Gln	Lys	Ser	Asp	Leu	Glu	Asn	Glu	Asp	Leu
		115					120					125			
Lys	Ile	Asp	Cys	Leu	Gln	Glu	Ser	Gln	Glu	Leu	Asn	Leu	Gln	Lys	Leu
		130				135				140					
Lys	Asn	Ser	Glu	Arg	Ile	Leu	Thr	Glu	Ala	Lys	Gln	Lys	Met	Arg	Glu
145					150					155				160	
Leu	Thr	Val	Asn	Ile	Lys	Met	Lys	Glu	Asp	Leu	Ile	Lys	Glu	Leu	Ile
			165						170					175	
Lys	Thr	Gly	Asn	Asp	Ala	Lys	Ser	Val	Ser	Lys	Gln	Tyr	Thr	Leu	Lys
			180					185					190		
Val	Thr	Lys	Leu	Glu	His	Asp	Ala	Glu	Gln	Ala	Lys	Val	Glu	Leu	Thr
		195					200						205		
Glu	Thr	Gln	Lys	Gln	Leu	Gln	Glu	Leu	Glu	Asn	Lys	Asp	Leu	Ser	Asp

210	215	220
Val Ala Met Lys Val Lys Leu Gln Lys Glu Phe Arg Lys Lys Val Asp		
225	230	235
Ala Ala Lys Leu Arg Val Gln Val Leu Gln Lys Lys Gln Gln Asp Ser		240
	245	250
Lys Lys Leu Ala Ser Leu Ser Ile Gln Asn Glu Lys Arg Ala Asn Glu		255
	260	265
Leu Glu Gln Ser Val Asp His Met Lys Tyr Gln Lys Ile Gln Leu Gln		270
	275	280
Arg Lys Leu Arg Glu Glu Asn Glu Lys Arg Lys Gln Leu Asp Ala Val		285
	290	295
Ile Lys Arg Asp Gln Gln Lys Ile Lys Val Ile Gln Leu Lys Thr Gly		300
305	310	315
Gln Glu Glu Gly Leu Lys Pro Lys Ala Glu Asp Leu Asp Ala Cys Asn		320
	325	330
Leu Lys Arg Arg Lys Gly Ser Phe Gly Ser Ile Asp His Leu Gln Lys		335
	340	345
Leu Asp Glu Gln Lys Lys Trp Leu Asp Glu Glu Val Glu Lys Val Leu		350
	355	360
Asn Gln Arg Gln Glu Leu Glu Glu Leu Glu Ala Asp Leu Lys Lys Arg		365
	370	375
Glu Ala Ile Val Ser Lys Lys Glu Ala Leu Leu Gln Glu Lys Ser His		380
385	390	395
Leu Glu Asn Lys Lys Leu Arg Ser Ser Gln Ala Leu Asn Thr Asp Ser		400
	405	410
Leu Lys Ile Ser Thr Arg Leu Asn Leu Leu Glu Gln Glu Leu Ser Glu		415
	420	425
Lys Asn Val Gln Leu Gln Thr Ser Thr Ala Glu Glu Lys Thr Lys Ile		430
	435	440
Ser Glu Gln Val Glu Val Leu Gln Lys Glu Lys Asp Gln Leu Gln Lys		445
	450	455
Arg Arg His Asp Val Asp Glu Lys Leu Lys Asn Gly Arg Val Leu Ser		460
465	470	475
Pro Glu Glu Glu His Val Leu Phe Gln Leu Glu Glu Gly Ile Glu Ala		480
	485	490
Leu Glu Ala Ala Ile Glu Tyr Arg Asn Glu Ser Ile Gln Asn Arg Gln		495
	500	505
Lys Ser Leu Arg Ala Ser Phe His Asn Leu Ser Arg Gly Glu Ala Asn		510
	515	520
Val Leu Glu Lys Leu Ala Cys Leu Ser Pro Val Glu Ile Arg Thr Ile		525
	530	535
Leu Phe Arg Tyr Phe Asn Lys Val Val Asn Leu Arg Glu Ala Glu Arg		540
545	550	555
Lys Gln Gln Leu Tyr Asn Glu Glu Met Lys Met Lys Val Leu Glu Arg		560
	565	570
Asp Asn Met Val Arg Glu Leu Glu Ser Ala Leu Asp His Leu Lys Leu		575
	580	585
Gln Cys Asp Arg Arg Leu Thr Leu Gln Gln Lys Glu His Glu Gln Lys		590
	595	600
Met Gln Leu Leu Leu His His Phe Lys Glu Gln Asp Gly Glu Gly Ile		605
	610	615
Met Glu Thr Phe Lys Thr Tyr Glu Asp Lys Ile Gln Gln Leu Glu Lys		620
625	630	635
Asp Leu Tyr Phe Tyr Lys Lys Thr Ser Arg Asp His Lys Lys Lys Leu		640



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<210> 4235
<211> 971
<212> DNA
<213> Homo sapiens
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120
gctattgggc tctcatttac aacttcaacg actaccaccg ccactttcac caccaacact
180
actaccacaa tcaccagtgg ctttactgtg aaccaaacc aactgttacc aagagggttt
240
gaaaaccttg taccttatac ttcaactggt agtgtagtag caactcctgt gatgacatat
300
ggtcactctgg aggtctctat aaatgagtgg aaccttgagc tggaagatca agagaagtac
360
ttcttctcc aggccactca ggtcaatgct tgggaccata cattgattga gaatggtgag
420
atgattcgta ttttacctg agaagtgaac aaagtgaac tggatcagaa aagattggaa
480
caagaattgg attttatcct gtcacagcag caggaactag aatttctggt gacttattta
540
gaggagtcta cgcgtgacca gagtggactt cattatctgc aggatgcaga tgaggagcat
600
tgggagatct ccaccagatc tgcagaattc tgaatgccca tatggactcc ctgcagtggg
660

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 780  
 cttcagcatg tcgtttctgg attattacct acaaattctg atgttaaata gagtagtatt  
 840  
 tataactaat atttcattct gatcataatg aattgtgcat cctttttttc atttaagtat  
 900  
 tgtactgttg agaattatac cttagttttg tttttagtat tagaaaatca aaattatact  
 960  
 agcccccttg t  
 971

&lt;210&gt; 4236

&lt;211&gt; 198

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4236

Ala	Pro	Thr	Ala	Ala	Val	Ala	Thr	Thr	Thr	Ser	Ser	Ser	Thr	Met	Gln
1				5					10					15	
Phe	Thr	Ser	Ile	Ser	Asn	Ser	Leu	Thr	Ser	Thr	Ala	Ala	Ile	Gly	Leu
			20					25					30		
Ser	Phe	Thr	Thr	Ser	Thr	Thr	Thr	Ala	Thr	Phe	Thr	Thr	Asn	Thr	
	35					40				45					
Thr	Thr	Thr	Ile	Thr	Ser	Gly	Phe	Thr	Val	Asn	Gln	Asn	Gln	Leu	Leu
	50					55				60					
Ser	Arg	Gly	Phe	Glu	Asn	Leu	Val	Pro	Tyr	Thr	Ser	Thr	Val	Ser	Val
65					70					75				80	
Val	Ala	Thr	Pro	Val	Met	Thr	Tyr	Gly	His	Leu	Glu	Gly	Leu	Ile	Asn
				85					90					95	
Glu	Trp	Asn	Leu	Glu	Leu	Glu	Asp	Gln	Glu	Lys	Tyr	Phe	Leu	Leu	Gln
		100						105					110		
Ala	Thr	Gln	Val	Asn	Ala	Trp	Asp	His	Thr	Leu	Ile	Glu	Asn	Gly	Glu
	115						120					125			
Met	Ile	Arg	Ile	Leu	His	Gly	Glu	Val	Asn	Lys	Val	Lys	Leu	Asp	Gln
	130					135					140				
Lys	Arg	Leu	Glu	Gln	Glu	Leu	Asp	Phe	Ile	Leu	Ser	Gln	Gln	Gln	Glu
145					150					155				160	
Leu	Glu	Phe	Leu	Leu	Thr	Tyr	Leu	Glu	Glu	Ser	Thr	Arg	Asp	Gln	Ser
			165					170					175		
Gly	Leu	His	Tyr	Leu	Gln	Asp	Ala	Asp	Glu	Glu	His	Val	Glu	Ile	Ser
		180						185					190		
Thr	Arg	Ser	Ala	Glu	Phe										
					195										

&lt;210&gt; 4237

&lt;211&gt; 560

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4237

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 120  
 aattgtctcg ccagtgtcag gagcaggtag cggcattcct ggccatcctc ttcaccctcc  
 180  
 ccacaccgtt tctctttcca ctccccggaa ctctccctg tccccatcct ggactccttg  
 240  
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 ggcgtagcag acgaggccct gggcaatgtg cggactgtgc gtgccttcgc catggagcaa  
 360  
 cgggaagagg agcgctatgg ggcagagctg gaagcctgcc gctgccgagc agaggagctg  
 420  
 ggccgeggca tgccttggtt ccaagggctt tccaacatcg ccttcaactg tgagtgagcc  
 480  
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 540  
 aaggccctcc cttcacgcgt  
 560

&lt;210&gt; 4238

&lt;211&gt; 124

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4238

Trp	Ala	Gln	Ala	Ser	Glu	Asn	Cys	Leu	Ala	Ser	Val	Arg	Ser	Arg	Tyr
1				5				10					15		
Arg	His	Ser	Trp	Pro	Ser	Ser	Ser	Pro	Ser	Pro	His	Arg	Phe	Ser	Phe
			20					25					30		
His	Ser	Pro	Glu	Leu	Leu	Pro	Val	Pro	Ile	Leu	Asp	Ser	Leu	Ser	Cys
		35					40					45			
Phe	Leu	Asp	Ser	Leu	Ser	Cys	Phe	Leu	Asp	Ser	Leu	Gln	Ile	Ala	Arg
	50					55				60					
Ala	Met	Gly	Val	Ala	Asp	Glu	Ala	Leu	Gly	Asn	Val	Arg	Thr	Val	Arg
65					70					75				80	
Ala	Phe	Ala	Met	Glu	Gln	Arg	Glu	Glu	Glu	Arg	Tyr	Gly	Ala	Glu	Leu
			85					90						95	
Glu	Ala	Cys	Arg	Cys	Arg	Ala	Glu	Glu	Leu	Gly	Arg	Gly	Ile	Ala	Leu
		100					105						110		
Phe	Gln	Gly	Leu	Ser	Asn	Ile	Ala	Phe	Asn	Cys	Glu				
		115					120								

&lt;210&gt; 4239

&lt;211&gt; 3127

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4239

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 gccactcgca agctggccaa gggcttcaca caatttgcca agatgacaga ggggaccaag  
 120  
 aagaccagca aaaagttcaa gttcttcaag ttcaagggtt ttgggagtct ctccaacctc  
 180

cctcggctct tcactctgag acgatactca gcttccatca gtaggcagtc ccatttggag  
240  
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300  
tatgcccgtt ccagtgcacat gtacagccac atgggaccca tgccctgccc cagcatcaag  
360  
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1980  
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aaaaaaaa  
3127

&lt;210&gt; 4240

&lt;211&gt; 860

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4240

Met Thr Glu Gly Thr Lys Lys Thr Ser Lys Lys Phe Lys Phe Phe Lys

3432

435	440	445
Pro Gln Leu Cys	Pro Gly Ser Ala	Pro Lys Thr His Gly Glu Ser Asp
450	455	460
Lys Gly Pro His Thr Ser	Pro Ser His Thr Leu Gly Lys Ala Ser Pro	
465	470	475
Ser Pro Ser Leu Ser Ser Tyr Ser Asp	Pro Asp Ser Gly His Tyr Cys	480
485	490	495
Gln Leu Gln Pro Pro Val Arg Gly Ser Arg Glu Trp Ala Ala Thr Glu		
500	505	510
Thr Ser Ser Gln Gln Ala Arg Ser Tyr Gly Glu Arg Leu Lys Glu Leu		
515	520	525
Ser Glu Asn Gly Ala Pro Glu Gly Asp Trp Gly Lys Thr Phe Thr Val		
530	535	540
Pro Ile Val Glu Val Thr Ser Ser Phe Asn Pro Ala Thr Phe Gln Ser		
545	550	555
Leu Leu Ile Pro Arg Asp Asn Arg Pro Leu Glu Val Gly Leu Leu Arg		
565	570	575
Lys Val Lys Glu Leu Leu Ala Glu Val Asp Ala Arg Thr Leu Ala Arg		
580	585	590
His Val Thr Lys Val Asp Cys Leu Val Ala Arg Ile Leu Gly Val Thr		
595	600	605
Lys Glu Met Gln Thr Leu Met Gly Val Arg Trp Gly Met Glu Leu Leu		
610	615	620
Thr Leu Pro His Gly Arg Gln Leu Arg Leu Asp Leu Leu Glu Arg Phe		
625	630	635
His Thr Met Ser Ile Met Leu Ala Val Asp Ile Leu Gly Cys Thr Gly		
645	650	655
Ser Ala Glu Glu Arg Ala Ala Leu Leu His Lys Thr Ile Gln Leu Ala		
660	665	670
Ala Glu Leu Arg Gly Thr Met Gly Asn Met Phe Ser Phe Ala Ala Val		
675	680	685
Met Gly Ala Leu Asp Met Ala Gln Ile Ser Arg Leu Glu Gln Thr Trp		
690	695	700
Val Thr Leu Arg Gln Arg His Thr Glu Gly Ala Ile Leu Tyr Glu Lys		
705	710	715
Lys Leu Lys Pro Phe Leu Lys Ser Leu Asn Glu Gly Lys Glu Gly Pro		
725	730	735
Pro Leu Ser Asn Thr Thr Phe Pro His Val Leu Pro Leu Ile Thr Leu		
740	745	750
Leu Glu Cys Asp Ser Ala Pro Pro Glu Gly Pro Glu Pro Trp Gly Ser		
755	760	765
Thr Glu His Gly Val Glu Val Val Leu Ala His Leu Glu Ala Ala Arg		
770	775	780
Thr Val Ala His His Gly Gly Leu Tyr His Thr Asn Ala Glu Val Lys		
785	790	795
Leu Gln Gly Phe Gln Ala Arg Pro Glu Leu Leu Glu Val Phe Ser Thr		
805	810	815
Glu Phe Gln Met Arg Leu Leu Trp Gly Ser Gln Gly Ala Ser Ser Ser		
820	825	830
Gln Ala Arg Arg Tyr Glu Lys Phe Asp Lys Val Leu Thr Ala Leu Ser		
835	840	845
His Lys Leu Glu Pro Ala Val Arg Ser Ser Glu Leu		
850	855	860

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 <211> 479  
 <212> DNA  
 <213> Homo sapiens

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 120  
 aagatggacc tgttgacgtg gatccaaagc aaaactcaga gcgacggctc caccctgcag  
 180  
 cagggctcct tggagttctt cagctgcttg tacgagatcc aggaggagga gtttatccag  
 240  
 caggccctga gccacttcca ggtgatcgtg gtcagcaaca ttgcctccaa gatggagcac  
 300  
 atggctcctt cgttctgtct gaagcgtgc aggagcggc aggtgctgca cttgtatggc  
 360  
 gccacctaca gcgcggacgg ggaagaccgc gcgaggtgtc cgcaggagcg cacacgtgt  
 420  
 tgggtcagct accagagagg cccgttctgc tggacgccta cagtgaacat ctggcagcg  
 479

<210> 4242  
 <211> 159  
 <212> PRT  
 <213> Homo sapiens

<400> 4242  
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 Phe Gly Leu Leu Asn Glu Glu Thr Arg Ser His Leu Glu Lys Ser Leu  
 20 25 30  
 Cys Trp Lys Val Ser Pro His Ile Lys Met Asp Leu Leu Gln Trp Ile  
 35 40 45  
 Gln Ser Lys Thr Gln Ser Asp Gly Ser Thr Leu Gln Gln Gly Ser Leu  
 50 55 60  
 Glu Phe Phe Ser Cys Leu Tyr Glu Ile Gln Glu Glu Glu Phe Ile Gln  
 65 70 75 80  
 Gln Ala Leu Ser His Phe Gln Val Ile Val Val Ser Asn Ile Ala Ser  
 85 90 95  
 Lys Met Glu His Met Val Ser Ser Phe Cys Leu Lys Arg Cys Arg Ser  
 100 105 110  
 Ala Gln Val Leu His Leu Tyr Gly Ala Thr Tyr Ser Ala Asp Gly Glu  
 115 120 125  
 Asp Arg Ala Arg Cys Pro Gln Glu Arg Thr Arg Cys Trp Cys Ser Tyr  
 130 135 140  
 Gln Arg Gly Pro Phe Cys Trp Thr Pro Thr Val Asn Ile Trp Gln  
 145 150 155

<210> 4243  
 <211> 3159  
 <212> DNA  
 <213> Homo sapiens



&lt;400&gt; 4243

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120  
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240  
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&lt;210&gt; 4244

&lt;211&gt; 849

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4244

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Glu Arg Thr Leu Cys Gln Pro Pro Thr Lys Asn Glu Ser Glu Ile Gln
          115          120          125
Phe Phe Tyr Val Asp Val Ser Thr Leu Ser Pro Val Asn Thr Thr Tyr
          130          135          140
Gln Leu Arg Val Ser Arg Met Asp Asp Phe Val Leu Arg Thr Gly Glu
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Gln Phe Ser Phe Asn Thr Thr Ala Ala Gln Pro Gln Tyr Phe Lys Tyr
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Glu Phe Pro Glu Gly Val Asp Ser Val Ile Val Lys Val Thr Ser Asn
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Lys Ala Phe Pro Cys Ser Val Ile Ser Ile Gln Asp Val Leu Cys Pro
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Val Tyr Asp Leu Asp Asn Asn Val Ala Phe Ile Gly Met Tyr Gln Thr
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Met Thr Lys Lys Ala Ala Ile Thr Val Gln Arg Lys Asp Phe Pro Ser
225          230          235          240
Asn Ser Phe Tyr Val Val Val Val Val Lys Thr Glu Asp Gln Ala Cys
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Gly Gly Ser Leu Pro Phe Tyr Pro Phe Ala Glu Asp Glu Pro Val Asp
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Gln Gly His Arg Gln Lys Thr Leu Ser Val Leu Val Ser Gln Ala Val
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Thr Ser Glu Ala Tyr Val Ser Gly Met Leu Phe Cys Leu Gly Ile Phe
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Leu Ser Phe Tyr Leu Leu Thr Val Leu Leu Ala Cys Trp Glu Asn Trp
305          310          315          320
Arg Gln Lys Lys Lys Thr Leu Leu Val Ala Ile Asp Arg Ala Cys Pro
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Glu Ser Ala Ser Leu Leu Gly His Pro Arg Val Leu Ala Asp Ser Phe
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Pro Gly Ser Ser Pro Tyr Glu Gly Tyr Asn Tyr Gly Ser Phe Glu Asn
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Pro Val Gly Thr Arg Pro Arg Val Asp Ser Met Ser Ser Val Glu Glu		415
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Asp Asp Tyr Asp Thr Leu Thr Asp Ile Asp Ser Asp Lys Asn Val Ile		430
	435	440
Arg Thr Lys Gln Tyr Leu Tyr Val Ala Asp Leu Ala Arg Lys Asp Lys		445
	450	455
Arg Val Leu Arg Lys Lys Tyr Gln Ile Tyr Phe Trp Asn Ile Ala Thr		460
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Gln Thr Val Val Asn Val Thr Gly Asn Gln Asp Ile Cys Tyr Tyr Asn		495
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	515	520
Leu Ser Asn Leu Gly Tyr Ile Leu Leu Gly Leu Leu Phe Leu Leu Ile		525
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Ile Leu Gln Arg Glu Ile Asn His Asn Arg Ala Leu Leu Arg Asn Asp		540
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Leu Cys Ala Leu Glu Cys Gly Ile Pro Lys His Phe Gly Leu Phe Tyr		560
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Tyr Met Ile Ala Gly Leu Cys Met Leu Lys Leu Tyr Gln Lys Arg His		605
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Leu Ser Thr Gln Leu Tyr Tyr Met Gly Arg Trp Lys Leu Asp Ser Gly		670
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Ile Phe Arg Arg Ile Leu His Val Leu Tyr Thr Asp Cys Ile Arg Gln		685
	690	695
Cys Ser Gly Pro Leu Tyr Val Asp Arg Met Val Leu Leu Val Met Gly		700
705	710	715
Asn Val Ile Asn Trp Ser Leu Ala Ala Tyr Gly Leu Ile Met Arg Pro		720
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Asn Asp Phe Ala Ser Tyr Leu Leu Ala Ile Gly Ile Cys Asn Leu Leu		735
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Leu Tyr Phe Ala Phe Tyr Ile Ile Met Lys Leu Arg Ser Gly Glu Arg		750
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Ile Lys Leu Ile Pro Leu Leu Cys Ile Val Cys Thr Ser Val Val Trp		765
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Gly Phe Ala Leu Phe Phe Phe Gln Gly Leu Ser Thr Trp Gln Lys		780
785	790	795
Thr Pro Ala Glu Ser Arg Glu His Asn Arg Asp Cys Ile Leu Leu Asp		800

	805		810		815
Phe	Phe Asp Asp His Asp Ile Trp His Phe Leu Ser Ser Ile Ala Met				
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Phe Gly Ser Phe Leu Val Ser Gly Pro Pro Gly Ala Ala Leu Arg Ile					
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Thr					

&lt;210&gt; 4245

&lt;211&gt; 909

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4245

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&lt;210&gt; 4246

&lt;211&gt; 303

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4246

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300
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&lt;210&gt; 4248

&lt;211&gt; 1297

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4248

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Thr	Glu	Arg	Pro	Ala	Gly	Arg	Pro	Gly	Ala	Pro	Leu	Val	Arg	Thr	Gly
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Leu	Leu	Leu	Leu	Ser	Thr	Trp	Val	Leu	Ala	Gly	Ala	Glu	Ile	Thr	Trp
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Gly	Pro	Glu	Leu	Leu	Pro	Gln	Gln	Gly	Gly	Arg	Gly	Gly	Glu	Met	
			165					170					175		
Gln	Val	Glu	Ala	Gly	Gly	Thr	Ser	Pro	Ala	Gly	Glu	Arg	Arg	Gly	Arg
		180					185					190			
Gly	Ile	Pro	Ala	Pro	Ala	Lys	Leu	Gly	Gly	Ala	Arg	Arg	Ser	Arg	Arg
		195				200					205				
Ala	Gln	Pro	Pro	Ile	Thr	Gln	Glu	Arg	Gly	Asp	Ala	Trp	Ala	Thr	Ala

210	215	220
Pro Ala Asp Gly Ser Arg Gly Ser Arg Pro Leu Ala Lys Gly Ser Arg		
225	230	235
Glu Glu Val Lys Ala Pro Arg Ala Gly Gly Ser Ala Ala Glu Asp Leu		240
	245	250
Arg Leu Pro Ser Thr Ser Phe Ala Leu Thr Gly Asp Ser Ala His Asn		255
	260	265
Gln Ala Met Val His Trp Ser Gly His Asn Ser Ser Val Ile Leu Ile		270
	275	280
Leu Thr Lys Leu Tyr Asp Phe Asn Leu Gly Ser Val Thr Glu Ser Ser		285
	290	295
Leu Trp Arg Ser Thr Asp Tyr Gly Thr Thr Tyr Glu Lys Leu Asn Asp		300
305	310	315
Lys Val Gly Leu Lys Thr Val Leu Ser Tyr Leu Tyr Val Asn Pro Thr		320
	325	330
Asn Lys Arg Lys Ile Met Leu Leu Ser Asp Pro Glu Met Glu Ser Ser		335
	340	345
Ile Leu Ile Ser Ser Asp Glu Gly Ala Thr Tyr Gln Lys Tyr Arg Leu		350
	355	360
Thr Phe Tyr Ile Gln Ser Leu Leu Phe His Pro Lys Gln Glu Asp Trp		365
	370	375
Val Leu Ala Tyr Ser Leu Asp Gln Lys Leu Tyr Ser Ser Met Asp Phe		380
385	390	395
Gly Arg Arg Trp Gln Leu Met His Glu Arg Ile Thr Pro Asn Arg Phe		400
	405	410
Tyr Trp Ser Val Ala Gly Leu Asp Lys Glu Ala Asp Leu Val His Met		415
	420	425
Glu Val Arg Thr Thr Asp Gly Tyr Ala His Tyr Leu Thr Cys Arg Ile		430
	435	440
Gln Glu Cys Ala Glu Thr Thr Arg Ser Gly Pro Phe Ala Arg Ser Ile		445
	450	455
Asp Ile Ser Ser Leu Val Val Gln Asp Glu Tyr Ile Phe Ile Gln Val		460
465	470	475
Thr Thr Ser Gly Arg Ala Ser Tyr Tyr Val Ser Tyr Arg Arg Glu Ala		480
	485	490
Phe Ala Gln Ile Lys Leu Pro Lys Tyr Ser Leu Pro Lys Asp Met His		495
	500	505
Ile Ile Ser Thr Asp Glu Asn Gln Val Phe Ala Ala Val Gln Glu Trp		510
	515	520
Asn Gln Asn Asp Thr Tyr Asn Leu Tyr Ile Ser Asp Thr Arg Gly Ile		525
	530	535
Tyr Phe Thr Leu Ala Met Glu Asn Ile Lys Ser Ser Arg Gly Leu Met		540
545	550	555
Gly Asn Ile Ile Ile Glu Leu Tyr Glu Val Ala Gly Ile Lys Gly Ile		560
	565	570
Phe Leu Ala Asn Lys Lys Val Asp Asp Gln Val Lys Thr Tyr Ile Thr		575
	580	585
Tyr Asn Lys Gly Arg Asp Trp Arg Leu Leu Gln Ala Pro Asp Val Asp		590
	595	600
Leu Arg Gly Ser Pro Val His Cys Leu Leu Pro Phe Cys Ser Leu His		605
	610	615
Leu His Leu Gln Leu Ser Glu Asn Pro Tyr Ser Ser Gly Arg Ile Ser		620
625	630	635
Ser Lys Glu Thr Ala Pro Gly Leu Val Val Ala Thr Gly Asn Ile Gly		640

645 650 655  
 Pro Glu Leu Ser Tyr Thr Asp Ile Gly Val Phe Ile Ser Ser Asp Gly  
 660 665 670  
 Gly Asn Thr Trp Arg Gln Ile Phe Asp Glu Glu Tyr Asn Val Trp Phe  
 675 680 685  
 Leu Asp Trp Gly Gly Ala Leu Val Ala Met Lys His Thr Pro Leu Pro  
 690 695 700  
 Val Arg His Leu Trp Val Ser Phe Asp Glu Gly His Ser Trp Asp Lys  
 705 710 715 720  
 Tyr Gly Phe Thr Ser Val Pro Leu Phe Val Asp Gly Ala Leu Val Glu  
 725 730 735  
 Ala Gly Met Glu Thr His Ile Met Thr Val Phe Gly His Phe Ser Leu  
 740 745 750  
 Arg Ser Glu Trp Gln Leu Val Lys Val Asp Tyr Lys Ser Ile Phe Ser  
 755 760 765  
 Arg His Cys Thr Lys Glu Asp Tyr Gln Thr Trp His Leu Leu Asn Gln  
 770 775 780  
 Gly Glu Pro Cys Val Met Gly Glu Arg Lys Ile Phe Lys Lys Arg Lys  
 785 790 795 800  
 Pro Gly Ala Gln Cys Ala Leu Gly Arg Asp His Ser Gly Ser Val Val  
 805 810 815  
 Ser Glu Pro Cys Val Cys Ala Asn Trp Asp Phe Glu Cys Asp Tyr Gly  
 820 825 830  
 Tyr Glu Arg His Gly Glu Ser Gln Cys Val Pro Ala Phe Trp Tyr Asn  
 835 840 845  
 Pro Ala Ser Pro Ser Lys Asp Cys Ser Leu Gly Gln Ser Tyr Leu Asn  
 850 855 860  
 Ser Thr Gly Tyr Arg Arg Ile Val Ser Asn Asn Cys Thr Asp Gly Leu  
 865 870 875 880  
 Arg Glu Lys Tyr Thr Ala Lys Ala Gln Met Cys Pro Gly Lys Ala Pro  
 885 890 895  
 Arg Gly Leu His Val Val Thr Thr Asp Gly Arg Leu Val Ala Glu Gln  
 900 905 910  
 Gly His Asn Ala Thr Phe Ile Ile Leu Met Glu Glu Gly Asp Leu Gln  
 915 920 925  
 Arg Thr Asn Ile Gln Leu Asp Phe Gly Asp Gly Ile Ala Val Ser Tyr  
 930 935 940  
 Ala Asn Phe Ser Pro Ile Glu Asp Gly Ile Lys His Val Tyr Lys Ser  
 945 950 955 960  
 Ala Gly ile Phe Gln Val Thr Ala Tyr Ala Glu Asn Asn Leu Gly Ser  
 965 970 975  
 Asp Thr Ala Val Leu Phe Leu His Val Val Cys Pro Val Glu His Val  
 980 985 990  
 His Leu Arg Val Pro Phe Val Ala Ile Arg Asn Lys Glu Val Asn Ile  
 995 1000 1005  
 Ser Ala Val Val Trp Pro Ser Gln Leu Gly Thr Leu Thr Tyr Phe Trp  
 1010 1015 1020  
 Trp Phe Gly Asn Ser Thr Lys Pro Leu Ile Thr Leu Asp Ser Ser Ile  
 1025 1030 1035 1040  
 Ser Phe Thr Phe Leu Ala Glu Gly Thr Asp Thr Ile Thr Val Gln Val  
 1045 1050 1055  
 Ala Ala Gly Asn Ala Leu Ile Gln Asp Thr Lys Glu Ile Ala Val His  
 1060 1065 1070  
 Glu Tyr Phe Gln Ser Gln Leu Leu Ser Phe Ser Pro Asn Leu Asp Tyr

1075 1080 1085  
 His Asn Pro Asp Ile Pro Glu Trp Arg Lys Asp Ile Gly Asn Val Ile  
 1090 1095 1100  
 Lys Arg Ala Leu Val Lys Val Thr Ser Val Pro Glu Asp Gln Ile Leu  
 1105 1110 1115 1120  
 Ile Ala Val Phe Pro Gly Leu Pro Thr Ser Ala Glu Leu Phe Ile Leu  
 1125 1130 1135  
 Pro Pro Lys Asn Leu Thr Glu Arg Arg Lys Gly Asn Glu Gly Asp Leu  
 1140 1145 1150  
 Glu Gln Ile Val Glu Thr Leu Phe Asn Ala Leu Asn Gln Asn Leu Val  
 1155 1160 1165  
 Gln Phe Glu Leu Lys Pro Gly Val Gln Val Ile Val Tyr Val Thr Gln  
 1170 1175 1180  
 Leu Thr Leu Ala Pro Leu Val Asp Ser Ser Ala Gly His Ser Ser Ser  
 1185 1190 1195 1200  
 Ala Met Leu Met Leu Leu Ser Val Val Phe Val Gly Leu Ala Val Phe  
 1205 1210 1215  
 Leu Ile Tyr Lys Phe Lys Arg Lys Ile Pro Trp Ile Asn Ile Tyr Ala  
 1220 1225 1230  
 Gln Val Gln His Asp Lys Glu Gln Glu Met Ile Gly Ser Val Ser Gln  
 1235 1240 1245  
 Ser Glu Asn Ala Pro Lys Ile Thr Leu Ser Asp Phe Thr Glu Pro Glu  
 1250 1255 1260  
 Glu Leu Leu Asp Lys Glu Leu Asp Thr Arg Val Ile Gly Gly Ile Ala  
 1265 1270 1275 1280  
 Thr Ile Ala Asn Ser Glu Ser Thr Lys Glu Ile Pro Asn Cys Thr Ser  
 1285 1290 1295  
 Val

&lt;210&gt; 4249

&lt;211&gt; 553

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4249

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 120  
 cccagcacgc aacatggtaa aattcgcaat gcctcaggca tcaaccgag agtaccaggc  
 180  
 ccacaggaag gcagcataat aggaccccaa acaaggagga aaagcagcct cctgaaaccg  
 240  
 accctgatat cagaaccagc agacatgggc actcagcagt tcttacaact gaatcccaat  
 300  
 ctgcaaaagt ttagtagaga catggaagac gtaaaggagg cccaagcaa gcctctagag  
 360  
 aattataaca tgttggctgg gcttgggtgg tcacgcgtgt catgcagca ctttgggagg  
 420  
 ctgaggcagg aggatcgctt gagcccagga gttcaagacc agcctggacc acatagttag  
 480  
 acccccatct cataaaaaat aaaaaaaat tgaattacaa cacgaggtga caaaagcact  
 540

ggatgagatt aac  
553

<210> 4250

<211> 164

<212> PRT

<213> Homo sapiens

<400> 4250

Xaa	Arg	Ala	Leu	Pro	Lys	Lys	Asp	Gln	Val	Val	Gln	Lys	Ser	Glu	Gln
1				5					10					15	
Leu	Lys	Leu	Phe	Leu	Arg	Asn	Ser	Thr	Ala	Ser	Arg	Thr	Lys	Ile	Lys
		20						25					30		
Met	Ile	Tyr	Lys	Asn	Ala	Lys	Thr	Pro	Ser	Thr	Gln	His	Gly	Lys	Ile
		35					40					45			
Arg	Asn	Ala	Ser	Gly	Ile	Asn	Pro	Arg	Val	Pro	Gly	Pro	Gln	Glu	Gly
	50					55				60					
Ser	Ile	Ile	Gly	Pro	Gln	Thr	Arg	Arg	Lys	Ser	Ser	Leu	Leu	Lys	Pro
65					70					75				80	
Thr	Leu	Ile	Ser	Glu	Pro	Ala	Asp	Met	Gly	Thr	Gln	Gln	Phe	Leu	Gln
				85					90					95	
Leu	Asn	Pro	Asn	Leu	Gln	Lys	Phe	Ser	Arg	Asp	Met	Glu	Asp	Val	Lys
		100							105				110		
Gly	Thr	Pro	Ser	Lys	Pro	Leu	Glu	Asn	Tyr	Asn	Met	Leu	Ala	Gly	Leu
		115					120						125		
Gly	Gly	Ser	Arg	Val	Ser	Ser	Gln	His	Phe	Gly	Arg	Leu	Arg	Gln	Glu
	130						135				140				
Asp	Arg	Leu	Ser	Pro	Gly	Val	Gln	Asp	Gln	Pro	Gly	Pro	His	Ser	Glu
145					150					155				160	
Thr	Pro	Ile	Ser												

<210> 4251

<211> 1574

<212> DNA

<213> Homo sapiens

<400> 4251

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60  
aaaaggggcgg cgcggggggg gtccccca caaaaaagg gggggaaagg aattcgcccc  
120  
gggggggggc caggccctaa cccatttat ttcattccac agatgagggc aaccttaaga  
180  
gggaaggggg agatggcagg gccagcgggc gcaggaagtg ccttcccacc ccaggacct  
240  
gacacatctc gtctccctc tttccgcac tgtgggcaca aagacacttt ttcttcgcga  
300  
ggggcgggag cccctagttc caacactgag gacgcgtgac atgggtgggca ccggaaagga  
360  
ggggacttct cctgcacccc aagaagtggg ggggagattg ctgcccctat agccatatct  
420  
cggcccttc ccactcacca ccccccccc aggtgctggg ggtcccttat ttttatgcaa  
480

taactgagct tgatgggggt gggcaggggg ccagttgagc caatcaccag cctccatata  
 540  
 acagatcctg accctgaatc tcaggagctg cagatcgggg gcacctgccc tgacatcacc  
 600  
 aaacgctacc tgcgctgac ctgtgcccc gaccctgcca ccgtgcgccc tgtggcagtt  
 660  
 ttgaaaaagt cgctgtgcat ggtcaagtgc cactggaaag agaagcagga ctacgcgttt  
 720  
 gcctgcgagc agatgaagtc gatccggcag gatctgacgg tgcagggcat ccgcaccgag  
 780  
 ttcacgggtg aggtgtacga gacctatgcc cggatcgctt tggagaaggg tgaccatgaa  
 840  
 gagtttaacc agtgccagac gcagctcaag tcgctgtacg ccgagaactt gcctggcaat  
 900  
 gtgggagagt ttactgccta ccgaatcctc tactacatct tcaccaagaa ctcgggagac  
 960  
 atcaccacgg agctggcata cctcacacga gaactgaagg cagatccttg cgtggccccac  
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 gccttgccat taaggacagc ctgggcccctg ggcaactacc accgcttttt ccggctctac  
 1080  
 tgccatgcac cctgcattgc tggctacctc gtggacaagt ttgcagatcg ggagcgcaag  
 1140  
 gtgcgcccctc aggccatgat caaacgtat gtggtgccc gctcccttct gcctttgctc  
 1200  
 ttccatcct tccgctcgc accgcccctc agaccagctc ctggccgcag gcctccccc  
 1260  
 gcccacaacc cttgtcctgg tccttgcctc cccatcatct ttctccattc agccctcccc  
 1320  
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 1380  
 tctcccccact gttccagct cactgcctct ggggcctctt ctccacccca tctgtgtgc  
 1440  
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 1500  
 agaaccctga ggtctctgct ttctcagctt gtcgctgtgc tcccaccata gagaccatct  
 1560  
 agacagcctc tggg  
 1574

&lt;210&gt; 4252

&lt;211&gt; 352

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4252

Met Gly Val Gly Arg Gly Pro Val Glu Pro Ile Thr Ser Leu His Ile  
 1 5 10 15  
 Thr Asp Pro Asp Pro Glu Ser Gln Glu Leu Gln Ile Gly Gly Thr Cys  
 20 25 30  
 Pro Asp Ile Thr Lys Arg Tyr Leu Arg Leu Thr Cys Ala Pro Asp Pro  
 35 40 45  
 Ser Thr Val Arg Pro Val Ala Val Leu Lys Lys Ser Leu Cys Met Val  
 50 55 60  
 Lys Cys His Trp Lys Glu Lys Gln Asp Tyr Ala Phe Ala Cys Glu Gln

65		70		75		80									
Met	Lys	Ser	Ile	Arg	Gln	Asp	Leu	Thr	Val	Gln	Gly	Ile	Arg	Thr	Glu
			85						90					95	
Phe	Thr	Val	Glu	Val	Tyr	Glu	Thr	His	Ala	Arg	Ile	Ala	Leu	Glu	Lys
		100						105					110		
Gly	Asp	His	Glu	Glu	Phe	Asn	Gln	Cys	Gln	Thr	Gln	Leu	Lys	Ser	Leu
		115					120					125			
Tyr	Ala	Glu	Asn	Leu	Pro	Gly	Asn	Val	Gly	Glu	Phe	Thr	Ala	Tyr	Arg
	130					135					140				
Ile	Leu	Tyr	Tyr	Ile	Phe	Thr	Lys	Asn	Ser	Gly	Asp	Ile	Thr	Thr	Glu
145					150					155					160
Leu	Ala	Tyr	Leu	Thr	Arg	Glu	Leu	Lys	Ala	Asp	Pro	Cys	Val	Ala	His
			165						170					175	
Ala	Leu	Ala	Leu	Arg	Thr	Ala	Trp	Ala	Leu	Gly	Asn	Tyr	His	Arg	Phe
		180					185					190			
Phe	Arg	Leu	Tyr	Cys	His	Ala	Pro	Cys	Met	Ser	Gly	Tyr	Leu	Val	Asp
	195						200					205			
Lys	Phe	Ala	Asp	Arg	Glu	Arg	Lys	Val	Ala	Leu	Lys	Ala	Met	Ile	Lys
	210					215					220				
Thr	Tyr	Val	Val	Pro	Ser	Ser	Leu	Leu	Pro	Leu	Leu	Phe	Pro	Ser	Phe
225					230					235					240
Arg	Leu	Ala	Pro	Pro	Leu	Arg	Pro	Ala	Pro	Gly	Arg	Arg	Pro	Pro	Pro
			245						250					255	
Ala	Pro	Asn	Pro	Cys	Pro	Gly	Pro	Cys	Phe	Pro	Ile	Ile	Phe	Leu	His
		260					265					270			
Ser	Ala	Leu	Pro	Ser	Pro	Val	Pro	Leu	Ala	Leu	Leu	Val	Gly	His	Leu
	275						280					285			
Cys	Val	Pro	Gly	His	Ser	Ser	Pro	Ser	Pro	His	Cys	Ser	Gln	Leu	Thr
	290					295					300				
Ala	Ser	Gly	Ala	Ser	Ser	Pro	Pro	His	Leu	Cys	Val	Ser	Ser	Ser	Cys
305					310					315					320
Ser	Leu	Leu	Pro	Gly	Pro	Pro	Ser	Ser	Leu	Leu	Ala	Leu	Gly	Phe	Leu
			325						330					335	
Arg	Thr	Leu	Arg	Ser	Leu	Leu	Ser	Gln	Leu	Val	Ala	Val	Leu	Pro	Pro
		340						345					350		

&lt;210&gt; 4253

&lt;211&gt; 1287

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4253

nntacggctg cgagaagaca cagactgtgc aacccccaaa gcaggtctcc tcaactcaccg

60

ggatagatag aactatcggc cccaattcct cagccctacc tgcaaccacc gcttgccatg

120

gtttccttgt ggggtggaggg tactttcccg cccctgtgtt tcgggcttgc ccacgtggct

180

tgctctggcc atggaatgaa gcagaaacga aagcctgcca gttctgagcc tatgccggaa

240

gacgccttgg gcggttcgc ggtccctgtg cgcttcacc ttcaccaga aggacttctc

300

tggtgcagcc gctgcttctt cagccacggc ccaaaggat cggagcccc tggccgatcc

360



gcaggtctgc agggagccac agagcgagc ggccggccca gcgttcaagc ccaagcacag  
420  
gcctgcgaga accttggtcc agccaccgtt tgggatggtt gattaggact tgttgcaagt  
480  
gcggtagctc accaatccag tgcgtgcacc cgctccttta ttaggtata gagccagtgg  
540  
ctcccacagg gacctgatac aacagtgcgt taaataagga gcatattgag ctctcatgtc  
600  
gtaagccagt ggagaagtcc agggctagt tgggggctcc ggcgggggct gtggcccca  
660  
tccgcatgga gcctcccat gggtcacagg tctcagtctt cggagccttc ggccctgcga  
720  
gcccgaacgg tccacagggc ggccgagac cctctttcga acgccatcct ctaaagcggc  
780  
tggaacaagg ttcttgcaagg cctgtgcttg ggcttgaacg ctgggcccgg ccgctgcgt  
840  
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900  
tgaagaagca gcggctgcac cagagaaggc cctctgggtg aaggtgggag cgcacggggc  
960  
ccgcggaacc acctaaaggc acttcagacg tgggctcgga actggcagcc ttctgtttct  
1020  
gcttcattcc aaggccagag caagccacgt gggcaaacc aaagccaggg gacaggaaag  
1080  
tatcctccac ccacaacgaa accatggcaa gcggtggatg caggtacggc caatagtcta  
1140  
tctatcccg tgagtgagga gacctgttt gagggttgca caacctggat ctgcttttac  
1200  
agtgggtgtc gtcactatga agacccaca gggcggcgcc agaccttct tcgaacgcca  
1260  
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1287

&lt;210&gt; 4254

&lt;211&gt; 114

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4254

Met	Val	Ser	Leu	Trp	Val	Glu	Gly	Thr	Phe	Pro	Pro	Pro	Gly	Phe	Gly
1			5					10					15		
Leu	Ala	His	Val	Ala	Cys	Ser	Gly	His	Gly	Met	Lys	Gln	Lys	Arg	Lys
			20				25					30			
Pro	Ala	Ser	Ser	Glu	Pro	Met	Pro	Glu	Asp	Ala	Leu	Gly	Gly	Ser	Ala
			35				40					45			
Val	Pro	Val	Arg	Phe	His	Leu	His	Pro	Glu	Gly	Leu	Leu	Trp	Cys	Ser
			50				55				60				
Arg	Cys	Phe	Phe	Ser	His	Gly	Pro	Lys	Gly	Ser	Glu	Pro	Pro	Gly	Arg
65					70				75					80	
Ser	Ala	Gly	Leu	Gln	Gly	Ala	Thr	Glu	Arg	Ser	Gly	Arg	Pro	Ser	Val
			85					90					95		
Gln	Ala	Gln	Ala	Gln	Ala	Cys	Glu	Asn	Leu	Val	Pro	Ala	Thr	Val	Trp
			100					105					110		
Asp	Gly														

<210> 4255  
<211> 2205  
<212> DNA  
<213> Homo sapiens

<400> 4255  
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120  
aacacccaat ggcgtcctca gaatttatte tgggtccctc atgggacaag cattggatcc  
180  
cactaggaaa caatggatc tccatgcagt agctaatacca gggttgattt ctttgactgg  
240  
tccttactta gatgttgagg gagctggta tgttgtagaca atcagtcaca caattcattc  
300  
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360  
cagatacttc tacaaagttc tgatggacct attacctgtc tgtaaccaag atggtggcaa  
420  
caaaataagg tgcttcataa tggaggacag gggttatctg gtggcgaccc cgactctcat  
480  
cgaccccaaa ggacatgcac ctgtggagca gcagcacatc acccacaagg agcccctggt  
540  
agcaaatgat atcctcaacc accccaactt tgtaaagaaa aacctgtgca acagcttcag  
600  
tgacagaacg gtccagaggt tttataaatt caacaccagc cttgcggggg atttgacgaa  
660  
ccttgatcat ggcagccact gttccaaata cagattagca aggatcccag gaaccaacgc  
720  
gtttgttggc attgtcaacg aaacctgcga ctctcttgcc ttctgtgcct gcagcatggt  
780  
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840  
gtgccctcta gaggtcaatg agtgcactgg caacctcacc aatgcagaga accgaaaccc  
900  
cagctgcgag gtccaccagg agccggtgac atacacagct attgacctg gcctgcaaga  
960  
tgctcttcac cagtgtgtca acagcagggt cagtcagagg ctggaaagtg gggactgttt  
1020  
tggggtgctg gattgtgaat ggtgcatggt ggacagtgat ggaaagactc acctggacaa  
1080  
accctactgt gccccccaga aagaatgctt cggggggatt gtgggagcca aaagtcctta  
1140  
cgttgatgac atgggagcaa taggtgatga ggtgatcaca ttaaaatgat taaaagcgcc  
1200  
cctgtgggtc ttgtggctgg agggatcatg ggatgcatca atggtttttg tctggcggt  
1260  
gtatgcctac cgccaccaga ttcacgcgcg gagccatcag catatgtctc ctcttgctgc  
1320  
ccaagaaatg tcagtgcgta tgtccaacct ggagaatgac agagatgaaa gggacgacga  
1380

cagccacgaa gacagaggca tcacagcaa cactcggttt atagctgcgg tcacgaacg  
 1440  
 acatgcacac agtcagaaa gaaggcgccg ctactgggtt cgatcaggaa cagaaagtga  
 1500  
 tcattggttac agcaccatga gccacagga ggacagtga aatcctccat gcaacaatga  
 1560  
 ccccttgta gccggggtcg atgtgggaaa ccatgatgag gacttagacc tggatacccc  
 1620  
 cctcagact gctgccctac taagtcacaa gtccaccac taccggtcac accaccctac  
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 1800  
 agaaaaagaa ccggcttaaa acccacagca agagacctcc cttgtgtttg tgctttgtgc  
 1860  
 agagtgtttt gattcatttc ctgcctgtcg acatgggtta aaacgagaga aacaacaaca  
 1920  
 cagtcacatt tgtgaagatg tgaggctggt tctgaaatgg aggggaaata agcctgatga  
 1980  
 acagacctgc cataacacta atggaaggta acagaaggcg aacctccaaa cacagagacg  
 2040  
 gaacctgcaa gtgaagctga gccagaggaa tgttccaaag agccagaagc attcagctct  
 2100  
 ccttaactgg aagagagaaa aatctgtctc cccagagact ggaatgtggc acatgcagat  
 2160  
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 2205

&lt;210&gt; 4256

&lt;211&gt; 384

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4256

Met	Ala	Thr	Ser	His	Val	Thr	Asp	Glu	Trp	Met	Thr	Gln	Met	Glu	Met
1				5					10					15	
Ser	Ser	Leu	Asn	Thr	Tyr	Ile	Val	Arg	Arg	Cys	Ile	Ala	Thr	Pro	Asn
			20					25					30		
Gly	Val	Leu	Arg	Ile	Tyr	Ser	Gly	Ser	Leu	Met	Gly	Gln	Ala	Leu	Asp
		35					40					45			
Pro	Thr	Arg	Lys	Gln	Trp	Tyr	Leu	His	Ala	Val	Ala	Asn	Pro	Gly	Leu
	50					55					60				
Ile	Ser	Leu	Thr	Gly	Pro	Tyr	Leu	Asp	Val	Gly	Gly	Ala	Gly	Tyr	Val
65					70					75				80	
Val	Thr	Ile	Ser	His	Thr	Ile	His	Ser	Ser	Ser	Thr	Gln	Leu	Ser	Ser
				85					90					95	
Gly	His	Thr	Val	Ala	Val	Met	Gly	Ile	Asp	Phe	Thr	Leu	Arg	Tyr	Phe
			100				105						110		
Tyr	Lys	Val	Leu	Met	Asp	Leu	Leu	Pro	Val	Cys	Asn	Gln	Asp	Gly	Gly
		115				120					125				
Asn	Lys	Ile	Arg	Cys	Phe	Ile	Met	Glu	Asp	Arg	Gly	Tyr	Leu	Val	Ala
	130					135					140				
His	Pro	Thr	Leu	Ile	Asp	Pro	Lys	Gly	His	Ala	Pro	Val	Glu	Gln	Gln

145                      150                      155                      160  
 His Ile Thr His Lys Glu Pro Leu Val Ala Asn Asp Ile Leu Asn His  
                                  165                      170                      175  
 Pro Asn Phe Val Lys Lys Asn Leu Cys Asn Ser Phe Ser Asp Arg Thr  
                                  180                      185                      190  
 Val Gln Arg Phe Tyr Lys Phe Asn Thr Ser Leu Ala Gly Asp Leu Thr  
                                  195                      200                      205  
 Asn Leu Val His Gly Ser His Cys Ser Lys Tyr Arg Leu Ala Arg Ile  
                                  210                      215                      220  
 Pro Gly Thr Asn Ala Phe Val Gly Ile Val Asn Glu Thr Cys Asp Ser  
 225                                   230                      235                      240  
 Leu Ala Phe Cys Ala Cys Ser Met Val Asp Arg Leu Cys Leu Asn Cys  
                                  245                      250                      255  
 His Arg Met Glu Gln Asn Glu Cys Glu Cys Pro Cys Glu Cys Pro Leu  
                                  260                      265                      270  
 Glu Val Asn Glu Cys Thr Gly Asn Leu Thr Asn Ala Glu Asn Arg Asn  
                                  275                      280                      285  
 Pro Ser Cys Glu Val His Gln Glu Pro Val Thr Tyr Thr Ala Ile Asp  
                                  290                      295                      300  
 Pro Gly Leu Gln Asp Ala Leu His Gln Cys Val Asn Ser Arg Cys Ser  
 305                                   310                      315                      320  
 Gln Arg Leu Glu Ser Gly Asp Cys Phe Gly Val Leu Asp Cys Glu Trp  
                                  325                      330                      335  
 Cys Met Val Asp Ser Asp Gly Lys Thr His Leu Asp Lys Pro Tyr Cys  
                                  340                      345                      350  
 Ala Pro Gln Lys Glu Cys Phe Gly Ile Val Gly Ala Lys Ser Pro  
                                  355                      360                      365  
 Tyr Val Asp Asp Met Gly Ala Ile Gly Asp Glu Val Ile Thr Leu Lys  
                                  370                      375                      380

&lt;210&gt; 4257

&lt;211&gt; 1541

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4257

agacgtcagt gccgtcgagg agctcttcag cgtgcgtac acgtgtaccc cagttcagtt  
 60  
 ttcttgacat cttcccaaaa gtcacctgca ggcctcccaa agaggtgata gacatggagc  
 120  
 tgagtgcctt gaggagtgc acagagcctg ggatggatct ttgggagttc tgcagcgaaa  
 180  
 ctttccaaag accttaccag tatttaagac gattcaatcc aaaccagac ctttaaccgg  
 240  
 ttcaagattc agaaaggttt tgccgaaggc cccccggagg aatgcctcca gcatttcctg  
 300  
 ttctactggg gggttaataaa cccatcctgg ccaaacctcc ggaactttgc tcggttcctg  
 360  
 aattatcagc tcagagattg tgaggectct ctcttctgca atccgagttt tattggcgac  
 420  
 acactgaggg gcttcaagaa gtctgtggtg accttcata tctttatggc aagagatttt  
 480  
 gccacacat cactccacac ctctgaccaa agccccggga agcacatggt caccatggat  
 540

ggggttaggg aagaagatct agcgcccttc tccctccgga agagggtggga gtcggagcct  
 600  
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 660  
 cagcccaaca tcaacggcag tgtcgatgcc atcagtcact tgactgggaa ggtcatcaag  
 720  
 agagacgtca tgaccaggga cctgtaccag ggcttgctgc tccagagggt gcccttcaat  
 780  
 gtcgactttg ataaactgcc cagacacaag aaacttgaga ggctctgcct gaccttaggg  
 840  
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 900  
 atccttgcca tcgagatgag gttccggtgt gggatccccg ttatcatcat gggagaaact  
 960  
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 1020  
 gctgacacca taaagctggg caaggtgcac ggaggaacaa ctgcagacat gatctactcc  
 1080  
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 1140  
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 1200  
 tgtgatcata tgggtggatgg ccagcctctg gctgaggact ctggcctgca tattatagct  
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 1320  
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 1380  
 tacacgtgta cgcagcgtg aagagctcct cgacggcact gacgtcctcc tttccaggat  
 1440  
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 1500  
 gtattgtaaa atgaggagct tgaaaagaaa caccgaatt c  
 1541

&lt;210&gt; 4258

&lt;211&gt; 314

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4258

Met	Ile	Phe	Met	Ala	Arg	Asp	Phe	Ala	Thr	Pro	Ser	Leu	His	Thr	Ser
1				5					10					15	
Asp	Gln	Ser	Pro	Gly	Lys	His	Met	Val	Thr	Met	Asp	Gly	Val	Arg	Glu
			20					25					30		
Glu	Asp	Leu	Ala	Pro	Phe	Ser	Leu	Arg	Lys	Arg	Trp	Glu	Ser	Glu	Pro
			35					40					45		
His	Pro	Tyr	Val	Phe	Phe	Asn	Asp	Asp	His	Thr	Thr	Met	Thr	Phe	Ile
			50				55				60				
Gly	Phe	His	Leu	Gln	Pro	Asn	Ile	Asn	Gly	Ser	Val	Asp	Ala	Ile	Ser
65					70					75				80	
His	Leu	Thr	Gly	Lys	Val	Ile	Lys	Arg	Asp	Val	Met	Thr	Arg	Asp	Leu
				85				90						95	
Tyr	Gln	Gly	Leu	Leu	Leu	Gln	Arg	Val	Pro	Phe	Asn	Val	Asp	Phe	Asp

	100		105		110										
Lys	Leu	Pro	Arg	His	Lys	Lys	Leu	Glu	Arg	Leu	Cys	Leu	Thr	Leu	Gly
	115						120					125			
Ile	Pro	Gln	Ala	Thr	Asp	Pro	Asp	Lys	Thr	Tyr	Glu	Leu	Thr	Thr	Asp
	130						135					140			
Asn	Met	Leu	Lys	Ile	Leu	Ala	Ile	Glu	Met	Arg	Phe	Arg	Cys	Gly	Ile
145					150					155					160
Pro	Val	Ile	Ile	Met	Gly	Glu	Thr	Gly	Cys	Gly	Lys	Thr	Arg	Leu	Ile
				165						170					175
Lys	Phe	Leu	Ser	Asp	Leu	Arg	Arg	Gly	Gly	Thr	Asn	Ala	Asp	Thr	Ile
			180					185					190		
Lys	Leu	Val	Lys	Val	His	Gly	Gly	Thr	Thr	Ala	Asp	Met	Ile	Tyr	Ser
	195						200					205			
Arg	Val	Arg	Glu	Ala	Glu	Asn	Val	Ala	Phe	Ala	Asn	Lys	Asp	Gln	His
	210					215						220			
Gln	Leu	Asp	Thr	Ile	Leu	Phe	Phe	Asp	Glu	Ala	Asn	Thr	Thr	Glu	Ala
225					230					235					240
Ile	Ser	Cys	Ile	Lys	Glu	Val	Leu	Cys	Asp	His	Met	Val	Asp	Gly	Gln
				245					250					255	
Pro	Leu	Ala	Glu	Asp	Ser	Gly	Leu	His	Ile	Ile	Ala	Ala	Cys	Asn	Pro
		260					265						270		
Tyr	Pro	Glu	Asn	Ser	Glu	Glu	Met	Ile	Cys	Arg	Leu	Glu	Ser	Ala	Gly
	275						280					285			
Leu	Gly	Tyr	Arg	Val	Ser	Met	Glu	Glu	Thr	Ala	Asp	Arg	Leu	Gly	Ser
	290					295					300				
Ile	Pro	Leu	Gly	Tyr	Thr	Cys	Thr	Gln	Arg						
305					310										

&lt;210&gt; 4259

&lt;211&gt; 377

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4259

tctgcgacgg gacccggcgt gccatgtgt caggtgggag aggactacgg ggagccggcg  
60cctgaggagc cgccccggc gccgcgccc agccgtgagc agaagtgtgt gaagtgaag  
120gaagcgcagc ccgttgtgt gatacgagcc ggagatgcct tctgcaggga ctgtttcaag  
180gccttctacg tccacaagtt cagagccatg ctgggcaaga accggctcat ctttccaggc  
240gagaagggtg tcttggcgtg gtctgggggg ccttcgtcca gctccatggt ctggcaggtt  
300cttgaggggc tgagccaaga ttctgcaaaa agactgcgct ttgtggcagg agtcatttt  
360gttgacgagg gagcagc  
377

&lt;210&gt; 4260

&lt;211&gt; 125

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4260

Ser Ala Thr Gly Pro Gly Val Pro Met Cys Gln Val Gly Glu Asp Tyr  
 1 5 10 15  
 Gly Glu Pro Ala Pro Glu Glu Pro Pro Pro Ala Pro Arg Pro Ser Arg  
 20 25 30  
 Glu Gln Lys Cys Val Lys Cys Lys Glu Ala Gln Pro Val Val Val Ile  
 35 40 45  
 Arg Ala Gly Asp Ala Phe Cys Arg Asp Cys Phe Lys Ala Phe Tyr Val  
 50 55 60  
 His Lys Phe Arg Ala Met Leu Gly Lys Asn Arg Leu Ile Phe Pro Gly  
 65 70 75 80  
 Glu Lys Val Leu Leu Ala Trp Ser Gly Gly Pro Ser Ser Ser Ser Met  
 85 90 95  
 Val Trp Gln Val Leu Glu Gly Leu Ser Gln Asp Ser Ala Lys Arg Leu  
 100 105 110  
 Arg Phe Val Ala Gly Val Ile Phe Val Asp Glu Gly Ala  
 115 120 125

&lt;210&gt; 4261

&lt;211&gt; 592

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4261

acgcgttact cctaccaggt tgtagcatgc atctttttga gagagcagct gggatcgagt  
 60  
 atactcttga cttaaataatg tttgtttata aagacaaatg gagaaatcaa tttttttccc  
 120  
 tgaattctta ggagcacttt agtgaataaa gaacctgaca gtatgctggc ccacatgttt  
 180  
 aaggacaaag gtgtctgggg aaataagcaa gatcatagag gagctttctt aattgaccga  
 240  
 agtctctgagt acttgaacc cattttgaac tacttgcgtc atggacagct cattgtaaat  
 300  
 gatggcatta atttattggg tgtgtagaa gaagcaagat tttttggtat tgactcattg  
 360  
 attgaacacc tagaagtggc aataaagaat tctcaaccac cggaggatca ttcaccaata  
 420  
 tcccgaagg aatttgctcg atttttgcta gcaactccaa ccaagtcaga actgcgatgc  
 480  
 cagggtttga acttcagtgg tgctgatctt tctcgtttgg accttcgata cattaacttc  
 540  
 aaaatggcca atttaagccg ctgtaatctt gcacatgcaa atctttgctg tg  
 592

&lt;210&gt; 4262

&lt;211&gt; 156

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4262

Ile Leu Arg Ser Thr Leu Val Asn Lys Glu Pro Asp Ser Met Leu Ala  
 1 5 10 15  
 His Met Phe Lys Asp Lys Gly Val Trp Gly Asn Lys Gln Asp His Arg

	20		25		30										
Gly	Ala	Phe	Leu	Ile	Asp	Arg	Ser	Pro	Glu	Tyr	Phe	Glu	Pro	Ile	Leu
	35		40		45										
Asn	Tyr	Leu	Arg	His	Gly	Gln	Leu	Ile	Val	Asn	Asp	Gly	Ile	Asn	Leu
	50		55		60										
Leu	Gly	Val	Leu	Glu	Glu	Ala	Arg	Phe	Phe	Gly	Ile	Asp	Ser	Leu	Ile
65			70		75									80	
Glu	His	Leu	Glu	Val	Ala	Ile	Lys	Asn	Ser	Gln	Pro	Pro	Glu	Asp	His
			85		90									95	
Ser	Pro	Ile	Ser	Arg	Lys	Glu	Phe	Val	Arg	Phe	Leu	Leu	Ala	Thr	Pro
	100		105		110										
Thr	Lys	Ser	Glu	Leu	Arg	Cys	Gln	Gly	Leu	Asn	Phe	Ser	Gly	Ala	Asp
	115		120		125										
Leu	Ser	Arg	Leu	Asp	Leu	Arg	Tyr	Ile	Asn	Phe	Lys	Met	Ala	Asn	Leu
	130		135		140										
Ser	Arg	Cys	Asn	Leu	Ala	His	Ala	Asn	Leu	Cys	Cys				
145			150		155										

&lt;210&gt; 4263

&lt;211&gt; 7710

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4263

cagaggaatc tgttctcaa ggcattcacg gacttctgg ccttcattgg cctctttaac  
60tacatcatcc ctgtgtccat gtacgtcacg gtcgagatgc agaagttcct cggctcttac  
120ttcatcacct gggacgaaga catgtttgac gaggagactg gcgaggggccc tctgttgaac  
180acgtcggacc tcaatgaaga gctgggacag gtggagtaca tcttcacaga caagaccggc  
240accctcacgg aaaacaacat ggagttcaag gactgtctga tcgaaggcca tgtctacgtg  
300ccccacgtca tctgcaacgg gcaggtcctc ccagagtcgt caggaatcga catgattgac  
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420tgccacaccg tccaggtgaa agacgatgac agcgtagacg gccccaggaa atcgccggac  
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540gtccagagac ttggctttac ctacctaagg ctgaaggaca attacatgga gatattaaac  
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660aggagaatga gtgtaattgt aaaatctgct acaggagaaa tttatctgtt ttgcaaagga  
720gcagattctt cgatattccc ccgagtgata gaaggcaaag ttgaccagat ccgagccaga  
780gtggagcgta acgcagtgga ggggctccga actttgtgtg ttgcttataa aaggctgac  
840caagaagaat atgaaggcat ttgtaagctg ctgcaggctg ccaaagtggc cttcaagat  
900



cgagagaaaa agttagcaga agcctatgag caaatagaga aagatcttac tctgcttggg  
960  
gctacagctg ttgaggaccg gctgcaggag aaagctgcag acaccatcga ggcctgcag  
1020  
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1080  
tgctacgcct gcaagctctt cgcaggaac acgcagctgc tggagctgac caccaagagg  
1140  
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1200  
agcgggagcc tgaccagaga caacctctcc ggactttcag cagatatgca ggactacggg  
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1380  
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1440  
ccaatcacgt tagcaattgg cgatggtgca aatgatgtca gcatgattct ggaagcgac  
1500  
gtgggcatag gtgtcatcgg caaggaaggc cgccaggctg ccaggaacag cgactatgca  
1560  
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1620  
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1920  
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1980  
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2040  
ctaaagcttg cattggacac aactactgg acttgatca accattttgt catctggggg  
2100  
tcgctgctgt tctacgttgt cttttcactt ctctggggag gagtgatctg gccgttcctc  
2160  
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2220  
gccatcgtgc tgctggtgac catcagctc cttcccgacg tctcaagaa agtccgtgac  
2280  
cggcagctgt ggccaacagc aacagagaga gtccagacta agagccagt cttttctgtc  
2340  
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2400  
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2520

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3180  
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3300  
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3420  
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3480  
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3540  
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3780  
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3840  
acatagcctt aatggctctt aaagaagaca tttcagtgtg agattcagac ttcagacgt  
3900  
gaaactgctg cctttcagga aagcaccacc aacgctggag gaggagccgg ccctcacgcc  
3960  
cgccccgcgc cacgtgtgg aacggggctc cggcaagtga aaccagagg gtgtttccga  
4020  
ggtgctcgac agtaggtatt ttggaagct cagatttcac catttgattg tataatctt  
4080  
tacctataaa atatttattt gaagtagagg gtaaatacgc ggtaagaaca gtgaacacag  
4140

tggttgggat aaaataaggt gacaaacatc acaccaaaga tgagggtagc gagcaactgg  
4200  
cttgagcaga cagaacgggg aagactccac tctgtccga ggggccagcc gcaggcgtcc  
4260  
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4320  
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4380  
gcataaatgt aacacctgta gggggggcag attctctgta tgttcagtta acaattatt  
4440  
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4560  
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4620  
tttgactgaa tgttccaatc tctgatgaat gcgaattttc agatttgatt ttattctcta  
4680  
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4740  
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4800  
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4860  
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<211> 797

<212> PRT

<213> Homo sapiens

<400> 4264

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			20					25					30		
Met	Gln	Lys	Phe	Leu	Gly	Ser	Tyr	Phe	Ile	Thr	Trp	Asp	Glu	Asp	Met
		35					40					45			
Phe	Asp	Glu	Glu	Thr	Gly	Glu	Gly	Pro	Leu	Val	Asn	Thr	Ser	Asp	Leu
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Asn	Glu	Glu	Leu	Gly	Gln	Val	Glu	Tyr	Ile	Phe	Thr	Asp	Lys	Thr	Gly
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Thr	Leu	Thr	Glu	Asn	Asn	Met	Glu	Phe	Lys	Glu	Cys	Cys	Ile	Glu	Gly
				85					90					95	
His	Val	Tyr	Val	Pro	His	Val	Ile	Cys	Asn	Gly	Gln	Val	Leu	Pro	Glu
			100					105					110		
Ser	Ser	Gly	Ile	Asp	Met	Ile	Asp	Ser	Ser	Pro	Ser	Val	Asn	Gly	Arg
		115					120					125			
Glu	Arg	Glu	Glu	Leu	Phe	Phe	Arg	Ala	Leu	Cys	Leu	Cys	His	Thr	Val
	130					135					140				
Gln	Val	Lys	Asp	Asp	Asp	Ser	Val	Asp	Gly	Pro	Arg	Lys	Ser	Pro	Asp
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Gly	Gly	Lys	Ser	Cys	Val	Tyr	Ile	Ser	Ser	Ser	Pro	Asp	Glu	Val	Ala
			165					170						175	
Leu	Val	Glu	Gly	Val	Gln	Arg	Leu	Gly	Phe	Thr	Tyr	Leu	Arg	Leu	Lys
		180					185					190			
Asp	Asn	Tyr	Met	Glu	Ile	Leu	Asn	Arg	Glu	Asn	His	Ile	Glu	Arg	Phe
	195					200					205				
Glu	Leu	Leu	Glu	Ile	Leu	Ser	Phe	Asp	Ser	Val	Arg	Arg	Arg	Met	Ser
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Val	Ile	Val	Lys	Ser	Ala	Thr	Gly	Glu	Ile	Tyr	Leu	Phe	Cys	Lys	Gly
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Ala	Asp	Ser	Ser	Ile	Phe	Pro	Arg	Val	Ile	Glu	Gly	Lys	Val	Asp	Gln
			245					250					255		
Ile	Arg	Ala	Arg	Val	Glu	Arg	Asn	Ala	Val	Glu	Gly	Leu	Arg	Thr	Leu
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340	345	350
Lys Met Glu Thr Ala Ala Ala Thr Cys Tyr Ala Cys Lys Leu Phe Arg		
355	360	365
Arg Asn Thr Gln Leu Leu Glu Leu Thr Thr Lys Arg Ile Glu Glu Gln		
370	375	380
Ser Leu His Asp Val Leu Phe Glu Leu Ser Lys Thr Val Leu Arg His		
385	390	395
Ser Gly Ser Leu Thr Arg Asp Asn Leu Ser Gly Leu Ser Ala Asp Met		
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Gln Asp Tyr Gly Leu Ile Ile Asp Gly Ala Ala Leu Ser Leu Ile Met		
420	425	430
Lys Pro Arg Glu Asp Gly Ser Ser Gly Asn Tyr Arg Glu Leu Phe Leu		
435	440	445
Glu Ile Cys Arg Ser Cys Ser Ala Val Leu Cys Cys Arg Met Ala Pro		
450	455	460
Leu Gln Lys Ala Gln Ile Val Lys Leu Ile Lys Phe Ser Lys Glu His		
465	470	475
Pro Ile Thr Leu Ala Ile Gly Asp Gly Ala Asn Asp Val Ser Met Ile		
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Arg Asp Pro Thr Leu Tyr Arg Asp Val Ala Lys Asn Ala Leu Leu Arg		
610	615	620
Trp Arg Val Phe Ile Tyr Trp Thr Leu Leu Gly Leu Phe Asp Ala Leu		
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Val Phe Phe Phe Gly Ala Tyr Phe Val Phe Glu Asn Thr Thr Val Thr		
645	650	655
Ser Asn Gly Gln Ile Phe Gly Asn Trp Thr Phe Gly Thr Leu Val Phe		
660	665	670
Thr Val Met Val Phe Thr Val Thr Leu Lys Leu Ala Leu Asp Thr His		
675	680	685
Tyr Trp Thr Trp Ile Asn His Phe Val Ile Trp Gly Ser Leu Leu Phe		
690	695	700
Tyr Val Val Phe Ser Leu Leu Trp Gly Gly Val Ile Trp Pro Phe Leu		

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	740		745		750	
Asp Val Leu Lys Lys Val Leu Cys Arg Gln Leu Trp Pro Thr Ala Thr						
	755		760		765	
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&lt;210&gt; 4265

&lt;211&gt; 2422

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4265

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&lt;210&gt; 4266

&lt;211&gt; 613

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4266

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Thr Gln Asn Gly Arg Leu Thr Asp Phe Leu Asp Cys Val Ile Ile Ser			
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His Phe His Leu Asp His Cys Gly Ala Leu Pro Tyr Phe Ser Glu Met			
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Val Gly Tyr Asp Gly Pro Ile Tyr Met Thr His Pro Thr Gln Ala Ile			
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Cys Pro Ile Leu Leu Glu Asp Tyr Arg Lys Ile Ala Val Asp Lys Lys			
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Gly Glu Ala Asn Phe Phe Thr Ser Gln Met Ile Lys Asp Cys Met Lys			
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Lys Val Val Ala Val His Leu His Gln Thr Val Gln Val Asp Asp Glu			
145	150	155	160
Leu Glu Ile Lys Ala Tyr Tyr Ala Gly His Val Leu Gly Ala Ala Met			
165	170	175	
Phe Gln Ile Lys Val Gly Ser Glu Ser Val Val Tyr Thr Gly Asp Tyr			
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Asn Met Thr Pro Asp Arg His Leu Gly Ala Ala Trp Ile Asp Lys Cys			
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Arg Pro Asn Leu Leu Ile Thr Glu Ser Thr Tyr Ala Thr Thr Ile Arg			
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Asp Ser Lys Arg Cys Arg Glu Arg Asp Phe Leu Lys Lys Val His Glu			
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&lt;210&gt; 4267

&lt;211&gt; 2230

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4267

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120

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240

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300

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&lt;210&gt; 4268

&lt;211&gt; 210

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4268

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 Lys Arg Cys Glu Ser Cys Ser Gln Lys Leu Glu Arg Glu Asn Asn His  
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 Cys Asn Ile Ser His Ser Ile Ile Leu Asn Ser Glu Asp Gly Glu Ile  
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 Leu Asn Asn Glu Glu His Glu Tyr Ala Ser Lys Lys Arg Lys Lys Asp  
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 His Phe Arg Asn Asp Thr Asn Thr Gln Ser Phe Tyr His Glu Lys Trp  
 100 105 110  
 Ile Tyr Val His Lys Glu Ser Thr Lys Glu Arg His Gly Tyr Cys Thr  
 115 120 125  
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 Ile Leu Asp Lys Ile Val Gln Lys Val Leu Asp Asp His His Asn Pro  
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 Ser Tyr  
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&lt;211&gt; 5748

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4269

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<210> 4270

<211> 1084

<212> PRT

<213> Homo sapiens

<400> 4270

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Ser	Pro	Ala	Tyr	Arg	Arg	Cys	Ser	Met	Asn	Arg	Ser	Arg	Ala	Ile	Val
			20					25					30		
Gln	Arg	Gly	Arg	Val	Leu	Pro	Pro	Pro	Ala	Pro	Leu	Asp	Thr	Thr	Asn
		35					40					45			
Leu	Ala	Gly	Arg	Arg	Thr	Leu	Gln	Gly	Arg	Ala	Lys	Met	Ala	Ser	Val
	50					55					60				
Pro	Val	Tyr	Cys	Leu	Cys	Arg	Leu	Pro	Tyr	Asp	Val	Thr	Arg	Phe	Met
65					70					75					80
Ile	Glu	Cys	Asp	Met	Cys	Gln	Asp	Trp	Phe	His	Gly	Ser	Cys	Val	Gly
			85					90						95	
Val	Glu	Glu	Glu	Lys	Ala	Ala	Asp	Ile	Asp	Leu	Tyr	His	Cys	Pro	Asn
			100					105					110		
Cys	Glu	Val	Leu	His	Gly	Pro	Ser	Ile	Met	Lys	Lys	Arg	Arg	Gly	Ser
		115					120					125			
Ser	Lys	Gly	His	Asp	Thr	His	Lys	Gly	Lys	Pro	Val	Lys	Thr	Gly	Ser
	130					135					140				
Pro	Thr	Phe	Val	Arg	Glu	Leu	Arg	Ser	Arg	Thr	Phe	Asp	Ser	Ser	Asp
145					150					155					160
Glu	Val	Ile	Leu	Lys	Pro	Thr	Gly	Asn	Gln	Leu	Thr	Val	Glu	Phe	Leu
			165					170						175	
Glu	Glu	Asn	Ser	Phe	Ser	Val	Pro	Ile	Leu	Val	Leu	Lys	Lys	Asp	Gly
		180						185					190		
Leu	Gly	Met	Thr	Leu	Pro	Ser	Pro	Ser	Phe	Thr	Val	Arg	Asp	Val	Glu
		195					200					205			
His	Tyr	Val	Gly	Ser	Asp	Lys	Glu	Ile	Asp	Val	Ile	Asp	Val	Thr	Arg
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Gln	Ala	Asp	Cys	Lys	Met	Lys	Leu	Gly	Asp	Phe	Val	Lys	Tyr	Tyr	Tyr
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Ser	Gly	Lys	Arg	Glu	Lys	Val	Leu	Asn	Val	Ile	Ser	Leu	Glu	Phe	Ser



3475

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690	695	700
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705	710	715
Glu Phe Asp Ile Glu Glu Asp Tyr Thr Thr Asp Glu Asp Met Val Glu		
725	730	735
Gly Val Glu Gly Lys Leu Gly Asn Gly Ser Gly Ala Gly Gly Ile Leu		
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Asp Leu Leu Lys Ala Ser Arg Gln Val Gly Gly Pro Asp Tyr Ala Ala		
755	760	765
Leu Thr Glu Ala Pro Ala Ser Pro Ser Thr Gln Glu Ala Ile Gln Gly		
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Met Leu Cys Met Ala Asn Leu Gln Ser Ser Ser Ser Ser Pro Ala Thr		
785	790	795
Ser Ser Leu Gln Ala Trp Trp Thr Gly Gly Gln Asp Arg Ser Ser Gly		
805	810	815
Ser Ser Ser Ser Gly Leu Gly Thr Val Ser Asn Ser Pro Ala Ser Gln		
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Arg Thr Pro Gly Lys Arg Pro Ile Lys Arg Pro Ala Tyr Trp Arg Thr		
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Glu Ser Glu Glu Glu Glu Glu Asn Ala Ser Leu Asp Glu Gln Asp Ser		
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Ser Asp Asp Asp Asp Pro Ala Leu Lys Ser Arg Pro Lys Lys Lys Lys		
885	890	895
Asn Ser Asp Asp Ala Pro Trp Ser Pro Lys Ala Arg Val Thr Pro Thr		
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Leu Pro Lys Gln Asp Arg Pro Val Arg Glu Gly Thr Arg Val Ala Ser		
915	920	925
Ile Glu Thr Gly Leu Ala Ala Ala Ala Lys Leu Ala Gln Gln Glu		
930	935	940
Leu Gln Lys Ala Gln Lys Lys Lys Tyr Ile Lys Lys Lys Pro Leu Leu		
945	950	955
Lys Glu Val Glu Gln Pro Arg Pro Gln Asp Ser Asn Leu Ser Leu Thr		
965	970	975
Val Pro Ala Pro Thr Val Ala Ala Thr Pro Gln Leu Val Thr Ser Ser		
980	985	990
Ser Pro Leu Pro Pro Pro Glu Pro Lys Gln Glu Ala Leu Ser Gly Ser		
995	1000	1005
Leu Ala Asp His Glu Tyr Thr Ala Arg Pro Asn Ala Phe Gly Met Ala		
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Gln Ala Asn Arg Ser Thr Thr Pro Met Ala Pro Gly Val Phe Leu Thr		
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Gln Arg Arg Pro Ser Val Gly Ser Gln Ser Asn Gln Ala Gly Gln Gly		
1045	1050	1055
Lys Arg Pro Lys Lys Gly Leu Ala Thr Ala Lys Gln Arg Leu Gly Arg		
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&lt;210&gt; 4271

&lt;211&gt; 588

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4271

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588

&lt;210&gt; 4272

&lt;211&gt; 134

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4272

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Ile	Leu	Arg	Gln	Leu	Thr	Thr	Asp	Phe	Val	His	His	Tyr	Ile	Val	Ala
			20					25					30		
Asn	Asn	Phe	Ser	Glu	Leu	Phe	His	Leu	Leu	Ser	Ser	Arg	Asn	Cys	Lys
		35					40					45			
Thr	Arg	Asn	Leu	Val	Met	Lys	Leu	Leu	Leu	Asn	Met	Ser	Glu	Asn	Pro
	50					55					60				
Thr	Ala	Ala	Arg	Asp	Met	Ile	Asn	Met	Lys	Ala	Leu	Ala	Ala	Leu	Lys
65					70				75					80	
Leu	Ile	Phe	Asn	His	Lys	Glu	Ala	Lys	Ala	Asn	Leu	Val	Ser	Gly	Val
			85					90					95		
Ala	Ile	Phe	Ile	Asn	Ile	Lys	Glu	His	Ile	Arg	Lys	Gly	Ser	Ile	Val
			100					105				110			
Val	Asn	Lys	Tyr	Gly	His	Thr	Thr	Asn	Lys	Ile	Gly	Phe	Cys	Leu	Phe
		115				120						125			
Leu	Val	Lys	Asp	Glu	Phe										
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&lt;210&gt; 4273

&lt;211&gt; 2081

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4273

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 acctgcaagt ggacagcgac attcagtcct gcactgtcca cctgggttta ctgatgactc  
 1860  
 ctggctgccc caccatcctc tctgatctgt gagaacagc taagctgctg tgacttccct  
 1920  
 ttaggacaat gttgtgtaaa tctttgaagg acacaccgaa gacctttata ctgtgatctt  
 1980  
 ttaccctttt cactcttggc tttcttatgt tgctttcatg aatggaatgg aaaaaagatg  
 2040  
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 2081

<210> 4274

<211> 235

<212> PRT

<213> Homo sapiens

<400> 4274

Met	Ala	Leu	Gly	Lys	Leu	Leu	Leu	His	Ser	Gly	Arg	Met	Ser	Ser	Gly
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Met	Ser	Ser	Cys	Pro	Cys	Ser	Thr	Trp	Pro	Met	Trp	Asp	Thr	Ser	Asp
			20					25					30		
Glu	Glu	Ser	Ile	Arg	Ala	His	Val	Met	Ala	Ser	His	His	Ser	Lys	Arg
			35				40					45			
Arg	Gly	Arg	Ala	Ser	Ser	Glu	Ser	Gln	Gly	Leu	Gly	Ala	Gly	Val	Arg
	50					55					60				
Thr	Glu	Xaa	Asp	Val	Glu	Glu	Ala	Leu	Arg	Arg	Lys	Leu	Glu	Glu	
65				70				75					80		
Leu	Thr	Ser	Asn	Val	Ser	Asp	Gln	Glu	Thr	Phe	Val	Arg	Gly	Gly	Gly
			85					90					95		
Ser	Gln	Gly	Arg	Lys	Cys	Arg	Ala	Gln	Gln	Gly	Gln	Ile	Ser	Trp	Ala
			100					105					110		
Ser	Pro	Pro	Gly	Gly	Pro	Gly	Arg	Trp	His	Gly	Cys	Pro	Ser	Asn	Gln
			115				120					125			
Gln	Thr	Gly	Lys	Lys	Pro	Gln	Asp	Pro	Gly	Asp	Pro	Val	Gln	Tyr	Asn
	130					135					140				
Arg	Thr	Thr	Asp	Glu	Glu	Leu	Ser	Glu	Leu	Glu	Asp	Arg	Val	Ala	Val
145				150						155				160	
Thr	Ala	Ser	Glu	Val	Gln	Gln	Ala	Glu	Ser	Glu	Val	Ser	Asp	Ile	Glu
			165					170					175		
Ser	Arg	Ile	Ala	Ala	Leu	Arg	Ala	Ala	Gly	Leu	Thr	Val	Lys	Pro	Ser
			180				185						190		
Gly	Lys	Pro	Arg	Arg	Lys	Ser	Asn	Leu	Pro	Ile	Phe	Leu	Pro	Arg	Val
		195				200					205				
Ala	Gly	Lys	Leu	Gly	Lys	Arg	Pro	Glu	Asp	Pro	Asn	Ala	Asp	Pro	Ser
	210					215					220				
Ser	Glu	Ala	Lys	Ala	Met	Ala	Val	Pro	Ile	Phe					

225

230

235

&lt;210&gt; 4275

&lt;211&gt; 874

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4275

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60

ggggcgacg tagtggtcac tggaccccc aatgcgggca agagcagcct agtgaacctg  
120

ctcagtcgga agcctgtgtc catcgtgtcc ccggagccag ggaccaccg tgacgtgctg  
180

gagacccag tcgacctggc cggatttcct gtgctgctga gcgacacggc tgggttgagg  
240

gagggcggtgg ggcccgtgga gcaggagggc gtgcggcgcg cccgggagag gctagagcag  
300

gctgacctca ttctggccat gctggatgct tctgacctgg cctctccctc cagttgcaac  
360

ttctggcca ccgtcgtagc ctctgtggga gccagagcc ccagtgcag cagccagcgc  
420

ctctcctgg tgctgaacaa gtcggacctg ctgtccccg agggcccagg tcccgtcct  
480

gacctgccc cgcacctgct gctgtcctgt ctgacgggag aggggctgga cggcctcctg  
540

gaggcgctga ggaaggagct agctgcagtg tgtggggacc cgtccacaga tccccgctg  
600

ctgaccgag caaggcacca gcaccacctc cagggttgcc tggatgcct cggccactac  
660

aagcagtcaa aagacctggc cctgggggca gaggcgctgc ggggtggccc gggtcacctg  
720

accggctca caggtggagg gggtagcgag gagatcctgg acatcatctt ccaggacttc  
780

tgtgtgggca agtgacggga tccagggaat tcgacccaa gctgcgtgga gaccaggag  
840

cctcggggga tctggaaaca gtttaggcca attg  
874

&lt;210&gt; 4276

&lt;211&gt; 264

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4276

Met Gln Val Ala Leu Gly Ala His Leu Arg Asp Ala Arg Arg Gly Gln  
1 5 10 15

Arg Leu Arg Ser Gly Ala His Val Val Val Thr Gly Pro Pro Asn Ala  
20 25 30

Gly Lys Ser Ser Leu Val Asn Leu Leu Ser Arg Lys Pro Val Ser Ile  
35 40 45

Val Ser Pro Glu Pro Gly Thr Thr Arg Asp Val Leu Glu Thr Pro Val  
50 55 60

Asp Leu Ala Gly Phe Pro Val Leu Leu Ser Asp Thr Ala Gly Leu Arg

```

65          70          75          80
Glu Gly Val Gly Pro Val Glu Gln Glu Gly Val Arg Arg Ala Arg Glu
      85          90          95
Arg Leu Glu Gln Ala Asp Leu Ile Leu Ala Met Leu Asp Ala Ser Asp
      100          105          110
Leu Ala Ser Pro Ser Ser Cys Asn Phe Leu Ala Thr Val Val Ala Ser
      115          120          125
Val Gly Ala Gln Ser Pro Ser Asp Ser Ser Gln Arg Leu Leu Leu Val
      130          135          140
Leu Asn Lys Ser Asp Leu Leu Ser Pro Glu Gly Pro Gly Pro Gly Pro
      145          150          155          160
Asp Leu Pro Pro His Leu Leu Leu Ser Cys Leu Thr Gly Glu Gly Leu
      165          170          175
Asp Gly Leu Leu Glu Ala Leu Arg Lys Glu Leu Ala Ala Val Cys Gly
      180          185          190
Asp Pro Ser Thr Asp Pro Pro Leu Thr Arg Ala Arg His Gln His
      195          200          205
His Leu Gln Gly Cys Leu Asp Ala Leu Gly His Tyr Lys Gln Ser Lys
      210          215          220
Asp Leu Ala Leu Ala Ala Glu Ala Leu Arg Val Ala Arg Gly His Leu
      225          230          235          240
Thr Arg Leu Thr Gly Gly Gly Gly Thr Glu Glu Ile Leu Asp Ile Ile
      245          250          255
Phe Gln Asp Phe Cys Val Gly Lys
      260

```

&lt;210&gt; 4277

&lt;211&gt; 1070

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4277

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60
ccgcctcgcg ccgccccctt ccgcgggtcc ggagttggcg gggccctgcg ccggaggagg
120
aggaccaggc ccgcgggctc agctctcgcc gccagcgggc cgcagcattt ttgaaacgtt
180
ggggttgttg gagtgttggtg attttcctg gaattgagtg agaaattcag aagactgaag
240
cccaggetta ctgtctacct ttcacggagg cctagccgtg agaggacaga agaaggcacg
300
tggcgaatca tgacagcgga caaagacaaa gacaaagaca aagagaagga ccgggaccga
360
gaccgggacc gagagagaga gaaaagagac aaagcaagag agagtgaaga ttcaaggcca
420
cgccggagct gtaccttggg agggaggagc aaaaattatg ctgagagtga tcacagtga
480
gacgaggaca atgacaacaa tagtgccacc gcagaggagt ccacgaagaa gaataagaag
540
aaaccaccga aaaaaagtc tcgttatgaa aggacagata ccggtgagat aacatcctac
600
atcactgaag atgatgtggt ctacagacca ggagactgtg tgtatatcga gagtcggagg
660

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ccaaacacac cgtatttcat ctgtagcatt caagacttca aactgggtcca caactcccag  
 720  
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 780  
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 840  
 gaccatctcc tcatgaacgt caaatgggtac taccgtcaat ctgaggttcc agattctgtg  
 900  
 tatcagcatt tggttcagga tcgacataat gaaaatgact ctggaagaga acttgtcatt  
 960  
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 1020  
 gctgctgccc ttagagggaa gtgtaacatt ctccattttt ctgacatatt  
 1070

&lt;210&gt; 4278

&lt;211&gt; 253

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4278

Met Thr Ala Asp Lys Asp Lys Asp Lys Asp Lys Glu Lys Asp Arg Asp  
 1 5 10 15  
 Arg Asp Arg Asp Arg Glu Arg Glu Lys Arg Asp Lys Ala Arg Glu Ser  
 20 25 30  
 Glu Asn Ser Arg Pro Arg Arg Ser Cys Thr Leu Glu Gly Gly Ala Lys  
 35 40 45  
 Asn Tyr Ala Glu Ser Asp His Ser Glu Asp Glu Asp Asn Asp Asn Asn  
 50 55 60  
 Ser Ala Thr Ala Glu Glu Ser Thr Lys Lys Asn Lys Lys Lys Pro Pro  
 65 70 75 80  
 Lys Lys Lys Ser Arg Tyr Glu Arg Thr Asp Thr Gly Glu Ile Thr Ser  
 85 90 95  
 Tyr Ile Thr Glu Asp Asp Val Val Tyr Arg Pro Gly Asp Cys Val Tyr  
 100 105 110  
 Ile Glu Ser Arg Arg Pro Asn Thr Pro Tyr Phe Ile Cys Ser Ile Gln  
 115 120 125  
 Asp Phe Lys Leu Val His Asn Ser Gln Ala Cys Cys Arg Ser Pro Thr  
 130 135 140  
 Pro Ala Leu Cys Asp Pro Pro Ala Cys Ser Leu Pro Val Ala Ser Gln  
 145 150 155 160  
 Pro Pro Gln His Leu Ser Glu Ala Gly Arg Gly Pro Val Gly Ser Lys  
 165 170 175  
 Arg Asp His Leu Leu Met Asn Val Lys Trp Tyr Tyr Arg Gln Ser Glu  
 180 185 190  
 Val Pro Asp Ser Val Tyr Gln His Leu Val Gln Asp Arg His Asn Glu  
 195 200 205  
 Asn Asp Ser Gly Arg Glu Leu Val Ile Thr Asp Pro Val Ile Lys Asn  
 210 215 220  
 Arg Glu Leu Phe Ile Ser Asp Tyr Val Asp Thr Tyr His Ala Ala Ala  
 225 230 235 240  
 Leu Arg Gly Lys Cys Asn Ile Leu His Phe Ser Asp Ile  
 245 250



&lt;210&gt; 4279

&lt;211&gt; 1963

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4279

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60  
ctgagcgtac accagcagct gggcaagatg gtgggtgtgt ctgatgatgt caacgagtat  
120  
gcaatggccc tgagagacac cgaggacaag ctacgtcggg gcccgaagag gaggaaggac  
180  
atccttgacg agttgaccaa gagccagaag gttttctcag aaaagctgga ccacctgagc  
240  
cgccgtcttg cctgggtcca tgccactgtc tactcccagg agaagatgct ggacatctac  
300  
tggctgctgc gcgtctgect gcggaccatt gagcacgggt atgcacagg gtctctcttt  
360  
gccttcatgc ccgagttcta cctgagcgtg gccatcaaca gctacagtgc tctcaagaat  
420  
tacttttggt ccgtgcacag catggaggag ctcccaggct atgaagagac cctgacccgc  
480  
ctggctgcca ttctcgccaa acactttgcc gacgcacgca ttgtgggcac tgacatccga  
540  
gactactga tgcaggccct ggccagctac gtgtgctacc cacactccct gcgggctgtg  
600ccgaggagca gcgtatgcc atggtgagga acctcctggc gccctatgag 660  
cagcggccct gggcccagac caactggatc ctggtgcggc tctggagggg ctgtggcttc  
720  
gggtaccgct atacacggct gccacatctg ctgaaaacca aacttgagga cgccaatttg  
780  
cccagcctec agaagccctg cccttcacc ctgctgcagc agcacatggc ggacctccta  
840  
cagcagggtc ctgatgtggc acccagcttc ctcaacagcg tctcaatca gctcaactgg  
900  
gccttctctg aattcattgg catgatccaa gagatccagc aggctgctga gcgctggag  
960  
cggaactttg tggacagccg gcagctcaag gtatgtgcca cctgctttga cctctcggtc  
1020  
agcctgctgc gtgtcttgga gatgactatc aactgggtgc ctgagataat ccttgactgg  
1080  
accggccta cctctgagat gctgctgcgg cgtcttgac agctgctaaa ccagggtgctg  
1140  
aaccgggtga cagctgagag gaacctgttt gatcgtgtgg tcacctacg gctgctggc  
1200  
ctagagagcg tggaccacta tcccattctg gtggcagtga cgggcaccc ggtgcagctc  
1260  
ctggtgcgtg gccagcctc agagagagag caagccacat cagtgtcctt ggcagatccc  
1320  
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1380  
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1440  
agtgccgatg agctggccca agtggaacag atgtggcgc acctgacctc tgcactgtcc  
1500

caggcagcag ctgcctccct gccaccagt gaggaggacc tctgccccat ctgctatgcc  
 1560  
 cccccatct ctgctgtgtt ccagccctgt ggccacaagt cctgcaaagc ctgtatcaac  
 1620  
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 1680  
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 1740  
 gtgccatcct ggaacctcca cctttgaacc cagagccagg ctggggcccta tttatgagct  
 1800  
 ccctttgccc ttctcctgta tcccacacca ccacatccaa cctccttgcc tgctgtatc  
 1860  
 ctcattggtg ggagcccagc catggcccta attgtgcctg agcttgactt tcagtcaggg  
 1920  
 ccacagtgag cattaaatta ttattccata caaaaaaaaaaaa aaa  
 1963

&lt;210&gt; 4280

&lt;211&gt; 575

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4280

Arg	Pro	Leu	Thr	Glu	Asn	Ser	Leu	Leu	Glu	Val	Leu	Asp	Gly	Thr	Val
1			5					10					15		
Met	Met	Tyr	Ser	Leu	Ser	Val	His	Gln	Gln	Leu	Gly	Lys	Met	Val	Gly
		20						25				30			
Val	Ser	Asp	Asp	Val	Asn	Glu	Tyr	Ala	Met	Ala	Leu	Arg	Asp	Thr	Glu
		35					40					45			
Asp	Lys	Leu	Arg	Arg	Cys	Pro	Lys	Arg	Arg	Lys	Asp	Ile	Leu	Ala	Glu
	50					55				60					
Leu	Thr	Lys	Ser	Gln	Lys	Val	Phe	Ser	Glu	Lys	Leu	Asp	His	Leu	Ser
65					70				75				80		
Arg	Arg	Leu	Ala	Trp	Val	His	Ala	Thr	Val	Tyr	Ser	Gln	Glu	Lys	Met
			85						90				95		
Leu	Asp	Ile	Tyr	Trp	Leu	Leu	Arg	Val	Cys	Leu	Arg	Thr	Ile	Glu	His
		100						105					110		
Gly	Asp	Arg	Thr	Gly	Ser	Leu	Phe	Ala	Phe	Met	Pro	Glu	Phe	Tyr	Leu
		115					120					125			
Ser	Val	Ala	Ile	Asn	Ser	Tyr	Ser	Ala	Leu	Lys	Asn	Tyr	Phe	Gly	Pro
	130					135					140				
Val	His	Ser	Met	Glu	Glu	Leu	Pro	Gly	Tyr	Glu	Glu	Thr	Leu	Thr	Arg
145					150				155						160
Leu	Ala	Ala	Ile	Leu	Ala	Lys	His	Phe	Ala	Asp	Ala	Arg	Ile	Val	Gly
			165					170					175		
Thr	Asp	Ile	Arg	Asp	Ser	Leu	Met	Gln	Ala	Leu	Ala	Ser	Tyr	Val	Cys
		180						185					190		
Tyr	Pro	His	Ser	Leu	Arg	Ala	Val	Glu	Arg	Ile	Pro	Glu	Glu	Gln	Arg
		195				200						205			
Ile	Ala	Met	Val	Arg	Asn	Leu	Leu	Ala	Pro	Tyr	Glu	Gln	Arg	Pro	Trp
	210					215					220				
Ala	Gln	Thr	Asn	Trp	Ile	Leu	Val	Arg	Leu	Trp	Arg	Gly	Cys	Gly	Phe
225					230				235						240
Gly	Tyr	Arg	Tyr	Thr	Arg	Leu	Pro	His	Leu	Leu	Lys	Thr	Lys	Leu	Glu

	245		250		255										
Asp	Ala	Asn	Leu	Pro	Ser	Leu	Gln	Lys	Pro	Cys	Pro	Ser	Thr	Leu	Leu
	260		265		270										
Gln	Gln	His	Met	Ala	Asp	Leu	Leu	Gln	Gln	Gly	Pro	Asp	Val	Ala	Pro
	275		280		285										
Ser	Phe	Leu	Asn	Ser	Val	Leu	Asn	Gln	Leu	Asn	Trp	Ala	Phe	Ser	Glu
	290		295		300										
Phe	Ile	Gly	Met	Ile	Gln	Glu	Ile	Gln	Gln	Ala	Ala	Glu	Arg	Leu	Glu
305			310		315									320	
Arg	Asn	Phe	Val	Asp	Ser	Arg	Gln	Leu	Lys	Val	Cys	Ala	Thr	Cys	Phe
	325		330		335										
Asp	Leu	Ser	Val	Ser	Leu	Leu	Arg	Val	Leu	Glu	Met	Thr	Ile	Thr	Leu
	340		345		350										
Val	Pro	Glu	Ile	Phe	Leu	Asp	Trp	Thr	Arg	Pro	Thr	Ser	Glu	Met	Leu
	355		360		365										
Leu	Arg	Arg	Leu	Ala	Gln	Leu	Leu	Asn	Gln	Val	Leu	Asn	Arg	Val	Thr
	370		375		380										
Ala	Glu	Arg	Asn	Leu	Phe	Asp	Arg	Val	Val	Thr	Leu	Arg	Leu	Pro	Gly
385			390		395									400	
Leu	Glu	Ser	Val	Asp	His	Tyr	Pro	Ile	Leu	Val	Ala	Val	Thr	Gly	Ile
	405		410		415										
Leu	Val	Gln	Leu	Leu	Val	Arg	Gly	Pro	Ala	Ser	Glu	Arg	Glu	Gln	Ala
	420		425		430										
Thr	Ser	Val	Leu	Leu	Ala	Asp	Pro	Cys	Phe	Gln	Leu	Arg	Ser	Ile	Cys
	435		440		445										
Tyr	Leu	Leu	Gly	Gln	Pro	Glu	Pro	Pro	Ala	Pro	Gly	Thr	Ala	Leu	Pro
	450		455		460										
Ala	Pro	Asp	Arg	Lys	Arg	Phe	Ser	Leu	Gln	Ser	Tyr	Ala	Asp	Tyr	Ile
465			470		475									480	
Ser	Ala	Asp	Glu	Leu	Ala	Gln	Val	Glu	Gln	Met	Leu	Ala	His	Leu	Thr
	485		490		495										
Ser	Ala	Ser	Ala	Gln	Ala	Ala	Ala	Ala	Ser	Leu	Pro	Thr	Ser	Glu	Glu
	500		505		510										
Asp	Leu	Cys	Pro	Ile	Cys	Tyr	Ala	His	Pro	Ile	Ser	Ala	Val	Phe	Gln
	515		520		525										
Pro	Cys	Gly	His	Lys	Ser	Cys	Lys	Ala	Cys	Ile	Asn	Gln	His	Leu	Met
	530		535		540										
Asn	Asn	Lys	Asp	Cys	Phe	Phe	Cys	Lys	Thr	Thr	Ile	Val	Ser	Val	Glu
545			550		555									560	
Asp	Trp	Glu	Lys	Gly	Ala	Asn	Thr	Ser	Thr	Ser	Ser	Ala	Ala		
	565		570		575										

&lt;210&gt; 4281

&lt;211&gt; 507

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4281

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120  
gctgactctg agaggcagtg ggcttcccg cagcacctcc ccctatcaca ttgttagggc  
180

tgggttatga ggccggaagt aagcaagcac cccctcatat caacctggca cttcacaccc  
 240  
 cccatgggta tcagtggggg tgctggctgg ctggcaggca gccagagaca ttccagcagg  
 300  
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 360  
 tgggtctacag atgagtgggc tccagtctca aatgaggaga acaaataggg aagtaggagc  
 420  
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 480  
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 507

<210> 4282

<211> 106

<212> PRT

<213> Homo sapiens

<400> 4282

Met	Asn	Ala	Leu	Thr	Asp	Pro	Leu	Ser	Phe	Pro	Pro	Ala	Ser	Met	Pro
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Asp	Leu	Leu	Lys	Cys	Leu	Trp	Leu	Pro	Ala	Ser	Gln	Pro	Ala	Pro	Pro
			20					25					30		
Leu	Ile	Thr	Met	Gly	Gly	Val	Lys	Cys	Gln	Val	Asp	Met	Arg	Gly	Cys
			35				40					45			
Leu	Leu	Thr	Ser	Gly	Leu	Ile	Asn	Gln	Pro	Tyr	Lys	Cys	Asp	Arg	Gly
			50			55					60				
Arg	Cys	Trp	Arg	Glu	Ala	His	Cys	Leu	Ser	Glu	Ser	Ala	Gln	Arg	Thr
65					70					75				80	
Glu	Ser	Gly	Asp	Ser	Trp	Gln	Lys	Arg	Gly	Gly	Leu	Arg	Leu	Trp	Gly
			85					90						95	
Ile	Trp	Pro	Ile	Gly	Gln	Leu	Trp	Gly	Ser						
			100					105							

<210> 4283

<211> 315

<212> DNA

<213> Homo sapiens

<400> 4283

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 120  
 gggagaaacc gagtccccgc cgggtcccca ccgtgtggcg ccgaccgaaa taactccagt  
 180  
 ccagctgcaa aaaccctccc gaaaacccaa gcttgtccgg cacaacttcg gtctctccag  
 240  
 cctcattcct gcccgcactc cgccaaactg ctgcgcctgc ccagcgcagc ggatgcagcg  
 300  
 ctcccggccc nacgg  
 315

<210> 4284

<211> 91  
 <212> PRT  
 <213> Homo sapiens

<400> 4284  
 Met Gly Cys Pro Ser Ala Ala Asp Arg Phe Pro Arg Arg Pro Asn Arg  
 1 5 10 15  
 Ser Asn Gly Gln Gly Arg Gly Ala Gly Gly Pro Gly Glu Thr Glu Ser  
 20 25 30  
 Pro Pro Gly Pro His Arg Val Ala Pro Thr Glu Ile Thr Pro Val Gln  
 35 40 45  
 Leu Gln Lys Pro Ser Arg Lys Pro Lys Leu Val Arg His Asn Phe Gly  
 50 55 60  
 Leu Ser Ser Leu Ile Pro Ala Arg Thr Pro Pro Asn Cys Ser Pro Cys  
 65 70 75 80  
 Pro Ala Gln Arg Met Gln Arg Ser Arg Pro Xaa  
 85 90

<210> 4285  
 <211> 591  
 <212> DNA  
 <213> Homo sapiens

<400> 4285  
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 aaaatcctga ccaagatgaa gcagcagggt catgagacag ccgcctgtcc ggagactgaa  
 120  
 gagataccgc agggagccag tggctgctgg aaggatgacc tccagaagga actgagtgat  
 180  
 atatggtgat gccagcctg cagtctgacc cctgaccctc ctctgaaccc gttcccccaa  
 240  
 cgggatctgg cagtgaccac cagaacctgg agcccacctg agtccagact tccctcacc  
 300  
 cctaggactc accccaccac ggcccccaac cttagctgta ctgctgtcta caccctgagc  
 360  
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 420  
 ctgcaggact ccatagacag cctcactttg tgctcggggg cctgtcccaa ggccctgagc  
 480  
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 591

<210> 4286  
 <211> 106  
 <212> PRT  
 <213> Homo sapiens

<400> 4286  
 Cys Pro Ala Cys Ser Leu Thr Pro Asp Pro Pro Leu Asn Pro Phe Pro  
 1 5 10 15  
 Gln Arg Asp Leu Ala Val Thr Thr Arg Thr Trp Ser Pro Pro Glu Ser

<210> 4288  
<211> 240  
<212> PRT  
<213> Homo sapiens

&lt;400&gt; 4288

Met Arg Val Ala Thr Lys Ser Gly Arg Lys Arg Trp Leu Lys Ala Thr  
 1 5 10 15  
 Thr Met Lys Asn Ser Val Arg Leu Val Ala Met Ala Pro Ser Pro Ala  
 20 25 30  
 Leu Thr Ser Ile Ser Ser Glu Pro Ser Glu Ala Trp Val Gln Ala Phe  
 35 40 45  
 Ala Ser Tyr Arg Met Ser Pro Gly Asn Trp Lys Thr Xaa Val Leu Ala  
 50 55 60  
 Gln Thr Leu Val Glu Ala Leu Gln Leu Asp Pro Glu Thr Leu Ala Asn  
 65 70 75 80  
 Glu Thr Ala Ala Arg Ala Ala Asn Val Ala Arg Ala Ala Ser Asn  
 85 90 95  
 Arg Ala Ala Arg Ala Ala Ala Ala Ala Arg Thr Ala Phe Ser Gln  
 100 105 110  
 Val Val Ala Ser His Arg Val Ala Thr Pro Gln Val Ser Gly Glu Asp  
 115 120 125  
 Thr Gln Pro Thr Thr Tyr Ala Ala Glu Ala Gln Gly Pro Thr Pro Glu  
 130 135 140  
 Pro Pro Leu Ala Ser Pro Gln Thr Ser Gln Met Leu Val Thr Ser Lys  
 145 150 155 160  
 Met Ala Ala Pro Glu Ala Pro Ala Thr Ser Ala Gln Ser Gln Thr Gly  
 165 170 175  
 Ser Pro Ala Gln Glu Ala Ala Thr Glu Gly Pro Ser Ser Ala Cys Ala  
 180 185 190  
 Phe Ser Gln Ala Pro Cys Ala Arg Glu Val Asp Ala Asn Arg Pro Ser  
 195 200 205  
 Thr Ala Phe Leu Gly Gln Asn Asp Val Phe Asp Phe Thr Gln Pro Ala  
 210 215 220  
 Val Ser Val Ala Trp Leu Pro Ala Pro Lys Arg Pro Ala Gln Pro Arg  
 225 230 235 240

&lt;210&gt; 4289

&lt;211&gt; 353

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4289

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 60  
 tcctcacttc aggtgtcact gctcagcata tatccaggct ttgttttcat attggtcttg  
 120  
 caagagcct tttgggaaca gttttcttat tgaaacatac tcagtgttta aacctgcagg  
 180  
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 240  
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 gccctggtt ttggagtcct tgtgctgagg ccgctgtaac ttgcggagag ttg  
 353

&lt;210&gt; 4290

&lt;211&gt; 113

&lt;212&gt; PRT

<213> Homo sapiens

<400> 4290

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Met Thr Thr Leu Pro Val Arg Asp Met Arg Glu Lys Tyr Gly Ser Leu
 1             5             10             15
Leu Thr Ser Gly Val Thr Ala Gln His Ile Ser Arg Leu Cys Phe His
 20             25             30
Ile Gly Leu Ala Lys Ser Leu Leu Gly Thr Val Phe Leu Leu Lys His
 35             40             45
Thr Gln Cys Leu Asn Leu Gln Val Trp Val Gly Gly Ser Pro His Gly
 50             55             60
Ile Leu Cys Ser Val Pro Val Leu Leu Ser Leu Ala Ile Gln Val Pro
 65             70             75             80
Val Arg Ile Leu Ser Pro Leu Asn Asn Gly Ala Cys Gly Arg Pro Ser
 85             90             95
Pro Cys Phe Trp Ser Pro Cys Ala Glu Ala Ala Val Thr Cys Gly Glu
 100            105            110
Leu

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<210> 4291

<211> 517

<212> DNA

<213> Homo sapiens

<400> 4291

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 120
tggagagaca cactttctca gaagtttgga tctcagatc acttggagaa actatttaag
 180
atggatgaag caagtgccca gctccttgct tataaggaaa aaggccattc tcagagtcca
 240
caatttttct ctgatcaaga aatagctcat ctgctgctg aaaatgtgag tgcgctccca
 300
gctacgggtg cagttgcttc tccacatacc acctcggcta ctccaaagcc cgccaccctt
 360
ctaccaccca atgcttcagt gacaccttct gggacttccc agccacagct ggccaccaca
 420
gctccacctg taaccactgt cacttctcag cctcccacga ccttcatttc tacagttttt
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<210> 4292

<211> 172

<212> PRT

<213> Homo sapiens

<400> 4292

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Xaa Asn Leu Pro Ser Gln Glu Leu Pro Gln Glu Asp Ser Leu Leu His
 1             5             10             15
Gly Gln Phe Ser Gln Ala Val Thr Pro Leu Ala His His His Thr Asp

```



<400> 4294  
Ala Gly Ala Pro Gly Ala Asp Ala Cys Ser Val Pro Val Ser Glu Ile

1	5	10	15
Ile Ala Val Glu Glu Thr Asp Val His Gly Lys His Gln Gly Ser Gly			
20	25	30	
Lys Trp Gln Lys Met Glu Lys Pro Tyr Ala Phe Thr Val His Cys Val			
35	40	45	
Lys Arg Ala Arg Arg His Arg Trp Lys Trp Ala Gln Val Thr Phe Trp			
50	55	60	
Cys Pro Glu Glu Gln Leu Cys His Leu Trp Leu Gln Thr Leu Arg Glu			
65	70	75	80
Met Leu Glu Lys Leu Thr Ser Arg Pro Lys His Leu Leu Val Phe Ile			
85	90	95	
Asn Pro Phe Gly Gly Lys Gly Gln Gly Lys Arg Ile Tyr Glu Arg Lys			
100	105	110	
Val Ala Pro Leu Phe Thr Leu Ala Ser Ile Thr Thr Asp Ile Ile Val			
115	120	125	
Thr Glu His Ala Asn Gln Ala Lys Glu Thr Leu Tyr Glu Ile Asn Ile			
130	135	140	
Asp Lys Tyr Asp Gly Ile Val Cys Val Gly Gly Asp Gly Met Phe Ser			
145	150	155	160
Glu Val Leu His Gly Leu Ile Gly Arg Thr Gln Arg Ser Ala Gly Val			
165	170	175	
Asp Gln Asn His Pro Arg			
180			

&lt;210&gt; 4295

&lt;211&gt; 431

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4295

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60  
agcccaactgc tggtccttg ttttgtaa at aagatttggt ggactacagc tatgcccgta  
120  
catgtacatt ttgtgtatgg ctgcttttgt gccacaacag cagggttgag tattgcgaca  
180  
gagaccccca ttgccacaaa gcctaaaaca ttggcatcg agccctttaa gaaagagttt  
240  
gctggccgtg cgcgggtggc gtggctccc cctgtaatcc cagcacttg gaaggctgag  
300  
gcaggcgggtg aggtctggag ttcgaaacca gcctggccag cgtggcgaaa cctgtctcc  
360  
ccctcccaga ttcacgtgat tatccacct cagcctcctg agtacctggg actataggcg  
420  
cgtgccaacc a  
431

&lt;210&gt; 4296

&lt;211&gt; 138

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4296

Xaa Leu Glu Asn His Cys Leu Leu Leu Pro Cys His Leu Tyr Thr Arg

1	5	10	15
Val Thr Asn Lys Ser Pro Leu Leu Ala Pro Cys Phe Val Asn Lys Ile			
	20	25	30
Cys Trp Thr Thr Ala Met Pro Val His Val His Phe Val Tyr Gly Cys			
	35	40	45
Phe Cys Ala Thr Thr Ala Gly Leu Ser Ile Ala Thr Glu Thr Pro Ile			
	50	55	60
Ala His Lys Pro Lys Thr Phe Ala Ile Glu Pro Phe Lys Lys Glu Phe			
	65	70	75
Ala Gly Arg Ala Arg Trp Pro Trp Leu Pro Pro Val Ile Pro Ala Leu			
	85	90	95
Trp Lys Ala Glu Ala Gly Gly Glu Val Trp Ser Ser Lys Pro Ala Trp			
	100	105	110
Pro Ala Trp Arg Asn Pro Val Ser Pro Ser Gln Ile His Val Ile Ile			
	115	120	125
Pro Pro Gln Pro Pro Glu Tyr Leu Gly Leu			
	130	135	

&lt;210&gt; 4297

&lt;211&gt; 1668

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4297

```

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gatttcaccg tgattccatc taaactgatt cagtttgacc caggaatgtc aactaagatg
120
tggaatatag caattaccta tgacggatta gaggaagatg atgaggtctt tgaagtaatt
180
ctgaactccc ctgtgaatgc agttcttggc acaaagacaa aagctgcagt gaaaattttg
240
gactcaaaag gaggacaatg ccatacttca tattcttcca accaaagcaa gcacagcaca
300
tgggagaagg gcatttggca tctgtgccc ccagggtctt cctcatccac cacttctggt
360
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420
gacaccctgc ggggctttga ttctacagat ctttctcaaa ggaagcttag gaccctggg
480
aatggcaaaa cagttcgtcc atcctctgtt tatagaaatg gaacagacat catctataat
540
tatcatggga tagtttctt gaaactggag gatgacagtt tcccaactca caaaaggaag
600
gccaaagtat ccatcattag tcagccacaa aagacaatca aagtggcaga actgcctcaa
660
gcagataagg tggaaatccac aactgactca cacttcccca gacaggacca gttgcctca
720
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780
aagctgtatc agtgcaatgg gatcgctgg aaagcctgga gtccccaac caaggatgtg
840
gaagacaaat cctgtccagc cgggtggcac cagcactcag gctactgtca catcttgatc
900

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acagagcaga aaggcacctg gaatgcggct gcccaagctt gcagggaaca atacctgggc  
 960  
 aaccttgtaa ctgtattctc caggcagcac atgcggtggc tctgggacat tggtagggaga  
 1020  
 aagtcctttt ggataggttt gaacgaccaa gtgcatgctg gccactggga gtggatcggg  
 1080  
 ggtgaacctg ttgccttcac caatgggaga agaggccct ctccacgctc caagcttgga  
 1140  
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 1200  
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 1320  
 attgttatga ttgagtgggt atacctttgt gattctgtct agtgaaaatg ggacattttt  
 1380  
 aatagtcca gaaagattga taaataaata ttttttaca gataagatac aatttttga  
 1440  
 tctcaatacc ttttaaaata aatgccagca gtattaaaaa gtgtaagggt tgtttattcc  
 1500  
 agaagacctt cacccttacc ccattccaaa tctcaggag caccagtctc atagtccttg  
 1560  
 gatttttttt aaaaaaaatt tttggtcccg ttacctctaa tgaatttatt ctgaaatatg  
 1620  
 tatcgtaggt gtcctacca cttagtctg agtggaaagc caaaaaac  
 1668

&lt;210&gt; 4298

&lt;211&gt; 411

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4298

Xaa	Met	Asp	Ser	Ala	Phe	Val	Gly	Ile	Lys	Val	Asn	Gln	Val	Ser	Ala
1				5					10					15	
Ala	Val	Gly	Lys	Asp	Phe	Thr	Val	Ile	Pro	Ser	Lys	Leu	Ile	Gln	Phe
			20					25					30		
Asp	Pro	Gly	Met	Ser	Thr	Lys	Met	Trp	Asn	Ile	Ala	Ile	Thr	Tyr	Asp
		35					40					45			
Gly	Leu	Glu	Glu	Asp	Asp	Glu	Val	Phe	Glu	Val	Ile	Leu	Asn	Ser	Pro
	50				55						60				
Val	Asn	Ala	Val	Leu	Gly	Thr	Lys	Thr	Lys	Ala	Ala	Val	Lys	Ile	Leu
65					70				75					80	
Asp	Ser	Lys	Gly	Gly	Gln	Cys	His	Pro	Ser	Tyr	Ser	Ser	Asn	Gln	Ser
			85					90					95		
Lys	His	Ser	Thr	Trp	Glu	Lys	Gly	Ile	Trp	His	Leu	Leu	Pro	Pro	Gly
			100					105					110		
Ser	Ser	Ser	Ser	Thr	Thr	Ser	Gly	Ser	Phe	His	Leu	Glu	Arg	Arg	Pro
		115					120					125			
Leu	Pro	Ser	Ser	Met	Gln	Leu	Ala	Val	Ile	Arg	Gly	Asp	Thr	Leu	Arg
	130				135						140				
Gly	Phe	Asp	Ser	Thr	Asp	Leu	Ser	Gln	Arg	Lys	Leu	Arg	Thr	Arg	Gly
145					150					155				160	
Asn	Gly	Lys	Thr	Val	Arg	Pro	Ser	Ser	Val	Tyr	Arg	Asn	Gly	Thr	Asp

	165		170		175
Ile Ile Tyr	Asn Tyr His Gly Ile Val Ser Leu Lys Leu Glu Asp Asp				
	180		185		190
Ser Phe Pro	Thr His Lys Arg Lys Ala Lys Val Ser Ile Ile Ser Gln				
	195		200		205
Pro Gln Lys	Thr Ile Lys Val Ala Glu Leu Pro Gln Ala Asp Lys Val				
	210		215		220
Glu Ser Thr	Thr Asp Ser His Phe Pro Arg Gln Asp Gln Leu Pro Ser				
225		230		235	240
Phe Pro Lys	Asn Cys Thr Leu Glu Leu Lys Gly Leu Phe His Phe Glu				
	245		250		255
Glu Gly Ile	Gln Lys Leu Tyr Gln Cys Asn Gly Ile Ala Trp Lys Ala				
	260		265		270
Trp Ser Pro	Gln Thr Lys Asp Val Glu Asp Lys Ser Cys Pro Ala Gly				
	275		280		285
Trp His Gln	His Ser Gly Tyr Cys His Ile Leu Ile Thr Glu Gln Lys				
	290		295		300
Gly Thr Trp	Asn Ala Ala Ala Gln Ala Cys Arg Glu Gln Tyr Leu Gly				
305		310		315	320
Asn Leu Val	Thr Val Phe Ser Arg Gln His Met Arg Trp Leu Trp Asp				
	325		330		335
Ile Gly Gly	Arg Lys Ser Phe Trp Ile Gly Leu Asn Asp Gln Val His				
	340		345		350
Ala Gly His	Trp Glu Trp Ile Gly Gly Glu Pro Val Ala Phe Thr Asn				
	355		360		365
Gly Arg Arg	Gly Pro Ser Pro Arg Ser Lys Leu Gly Lys Ser Cys Val				
	370		375		380
Leu Val Gln	Arg Gln Gly Lys Trp Gln Thr Lys Asp Cys Arg Arg Ala				
385		390		395	400
Lys Pro His	Asn Tyr Val Cys Ser Arg Lys Leu				
	405		410		

&lt;210&gt; 4299

&lt;211&gt; 988

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4299

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 tcccaggagg ggagtggagg gctcaggcac tgggtgccctt gtggcctctt aggctcgagg  
 120  
 ccttgggaca ggccccgag cacaagtga ggctgtctat ggagttctgc agcacgtgca  
 180  
 cagcagacca tatatcactc agttccttct ggaggtcatt cttccagcag ccactggctc  
 240  
 cctgcggtat ctcttcagtc tccggacagg cggctgtctc atgaccctgc tgcttcatct  
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 360  
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 900  
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 960  
 cagagactga gtcacagaga ggggtgct  
 988

&lt;210&gt; 4300

&lt;211&gt; 84

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4300

Gly	Cys	Leu	Trp	Ser	Ser	Ala	Ala	Arg	Ala	Gln	Gln	Thr	Ile	Tyr	His
1				5				10					15		
Ser	Val	Pro	Ser	Gly	Gly	His	Pro	Ser	Ser	Ser	His	Trp	Leu	Pro	Ala
			20				25						30		
Val	Ser	Leu	Gln	Ser	Pro	Asp	Arg	Arg	Leu	Ser	His	Asp	Pro	Ala	Ala
		35					40					45			
Ser	Ser	Trp	Ser	Gly	Phe	Cys	Gly	Ile	Ser	Pro	Ala	Phe	Ser	Ala	Phe
	50					55				60					
Ser	Glu	Cys	Ser	Pro	Ser	Ser	Leu	Arg	Ser	His	Pro	Pro	Ala	Leu	Gly
65					70				75					80	
Ala	Ser	Asp	Arg												

&lt;210&gt; 4301

&lt;211&gt; 2429

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4301

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 120  
 cagggccaga gcggggcagg aggatgcttt ccagcccca ccatggagct gcgctgtggg  
 180  
 ggattgctgt tcagttctcg ctttgattca ggaatctag cccacgtgga gaagtgga  
 240  
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 300

gcctcttccc ctgactatga attcaacgtg tggacccgac cagactgtgc tgaaacggaa  
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420  
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480  
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1920

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 2040  
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 2160  
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 2280  
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 2400  
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<210> 4302

<211> 717

<212> PRT

<213> Homo sapiens

<400> 4302

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Gly	Asn	Leu	Ala	His	Val	Glu	Lys	Val	Glu	Ser	Leu	Ser	Ser	Asp	Gly
			20					25					30		
Glu	Gly	Val	Gly	Gly	Gly	Ala	Ser	Ala	Leu	Thr	Ser	Gly	Ile	Ala	Ser
		35				40						45			
Ser	Pro	Asp	Tyr	Glu	Phe	Asn	Val	Trp	Thr	Arg	Pro	Asp	Cys	Ala	Glu
	50					55					60				
Thr	Glu	Phe	Glu	Asn	Gly	Asn	Arg	Ser	Trp	Phe	Tyr	Phe	Ser	Val	Arg
65				70						75				80	
Gly	Gly	Met	Pro	Gly	Lys	Leu	Ile	Lys	Ile	Asn	Ile	Met	Asn	Met	Asn
				85				90						95	
Lys	Gln	Ser	Lys	Leu	Tyr	Ser	Gln	Gly	Met	Ala	Pro	Phe	Val	Arg	Thr
			100					105					110		
Leu	Pro	Thr	Arg	Pro	Arg	Trp	Glu	Arg	Ile	Arg	Asp	Arg	Pro	Thr	Phe
		115					120					125			
Glu	Met	Thr	Glu	Thr	Gln	Phe	Val	Leu	Ser	Phe	Val	His	Arg	Phe	Val
	130					135					140				
Glu	Gly	Arg	Gly	Ala	Thr	Phe	Phe	Ala	Phe	Cys	Tyr	Pro	Phe	Ser	
145				150					155					160	
Tyr	Ser	Asp	Cys	Gln	Glu	Leu	Leu	Asn	Gln	Leu	Asp	Gln	Arg	Phe	Pro
			165					170						175	
Glu	Asn	His	Pro	Thr	His	Ser	Ser	Pro	Leu	Asp	Thr	Ile	Tyr	Tyr	His
		180						185					190		
Arg	Glu	Leu	Leu	Cys	Tyr	Ser	Leu	Asp	Gly	Leu	Arg	Val	Asp	Leu	Leu
		195					200					205			
Thr	Ile	Thr	Ser	Cys	His	Gly	Leu	Arg	Glu	Asp	Arg	Glu	Pro	Arg	Leu
	210					215						220			
Glu	Gln	Leu	Phe	Pro	Asp	Thr	Ser	Thr	Pro	Arg	Pro	Phe	Arg	Phe	Ala